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Real Optimism

IT IS said that in the Cumberland Mountains, when things go wrong and there doesn't seem to be one chance in a million that they will improve, they use this saying, "There's a whole day tomorrer that haint ben teched yet!"

Now, there is what we call the double-distilled, concentrated quintessence of real, philosophical optimism. We confess we have not much sympathy with that cheerful-idiotic optimism which, on the face of it, is inane; that light and airy complacency which utterly fails to take the measure of the enemy's strength and resources. A general of this kind neither inspires his cause with confidence nor gets the most out of his available forces, and as a result he loses both the battle and his shoulder-straps.

By the same token, that sort of silly optimism in a physician spells disaster both to his patient's welfare and to his own reputation. It is easy to be optimistic when one either cannot or will not see the evil. That is a specious, frothy, do-nothing kind of optimism.

But the man who can, and does see the long stretch of hard thorny path between the Now and the Then, yet believes that the Then will ultimately become the Now—his is the optimism which is most likely to do a good share toward clearing the way. The writer sometimes is rash enough to indulge a little in the poetical line—do not be alarmed, he never publishes it in THE CLINIC. A friend to whom once upon a time he gave the "priceless privilege" of seeing some of his effusions asked: "Why is it that you poetry writers are always pessimists? Why do you always write as if everything in the world were wrong?" The reply is, that the man who sees deeply and truly, as a poet is supposed to see, cannot fail to be pessimistic. But, in that pessimism is the truest optimism. The seer sees things all wrong because they are all wrong, and that is the first step to setting them right. But never question that, beyond the today of wrongs and abuses, he sees the "whole day tomorrer that haint ben teched yet."

That is true optimism. He is the true optimist who, seeing all around him nothing but muddle and wreckage and apparent disaster, yet believes that order will come out of the chaos and victory out of the defeat, and works on, fights on, with a song in his heart. He is the true hero who, with the shadow of the cross looming over him, sets his face steadfastly to go to Jerusalem.

Take the lesson in a little more quaint and homely form—for in such matters the homely is often the heroic. Read the following letter—an actual *bona-fide* epistle—it has cheer written all over it.

"Your letter came. Glad you bought a pair of horses. Hilda is sick. She has diphtheria, and she will die, I think. Clare died this eve. She had it, too. We are quarantined. Five of Fisher's family have got it. My wife is sick. She haint got it. If this thing gets worse, we may have to have a doctor. Them trees is budding good. Everything is O.K."

Of course, I am not holding up the detail of this optimist's conduct to emulation. The

rascal ought to have sent for you. But the spirit, my brother, the spirit! That fellow couldn't be a pessimist if he tried. No silly, specious, ostrich-like optimism there, hiding its head in the sand and feeling safe. Positively, there is a Homeric, Jove-like sublimity about it. Clouds—black, angry, threatening clouds—all over the sky, muttering thunder and spitting lightning; and there the fellow sits, with his big shaggy head poked right up through the clouds, and calmly contemplates them, sizes them up, describes them, and sums his epic with the dauntless laconism, "Everything is O.K."

I have seen and heard a great many proverbs and epigrams, all intended to cheer the discouraged soul with the thought that things cannot always be wrong, the sky always dark, the lane always long, and so on; but never one that made quite the appeal to me as this quaint saying of the Cumberland mountaineers. I have cut it out and pasted it in my hat, where it can soak into my brain. I hope it will give my readers as much inspiration as it does me.

No matter how vexatious and criss-crossed and disappointing and dismal and even tragic Today may be, "there's a whole day tomorrer that haint ben teched yet."

It is as impossible for a human being to be happy who is habitually idle as it is for a fine chronometer to be normal when not running.—Orison Swett Marden.

AS TO THE DIAGNOSIS BY THE PATIENT

The one-time pioneer, self-reliant habit has not wholly died out in the present-day American. The time was when he had to be Jack-of-all-trades—tiller of the soil, carpenter, blacksmith, and many other things manual, besides acting as policeman, lawyer, and doctor as well. So it is that we need not feel disgruntled when we find his descendants quite ready with positive conviction upon matters medical. The patient is just as likely to call upon us to treat him for, let us say, rheumatism or dyspepsia as deferentially to request our opinion as to the nature of his trouble.

How much weight is to be given this lay diagnosis?

Sometimes a man really knows what does ail him. He may be subject to a certain malady. His own conscience may tell him exactly what to expect. Indiscretions of many sorts may impart a knowledge that does not come to the doctor except by chance. Many of us have laughed over the tale of the rustic who, when the new doctor diagnosed the inflamed condition of his skin as erysipelas, responded: "Ery—hell! A bee stung me!"

Once, as this writer puzzled over an eruption that appeared on an infant whenever it slept, an old neighbor woman kindly helped the doctor out, by whispering into his ear, "Bugs!" The wife not infrequently supplies the missing link by a single word that tells the whole story—you know the list of them: "poker," "lobster salad," "booze," "lodge meeting" and other such personal factors in the life of the sufferer; who, only too often, had lacked courage to hint as to the real cause of his ailment, although quite well aware of it.

These are by no means instances of lack of diagnostic skill on the part of the physician, but rather evidences of a defect of human nature every last one of us is possessed of—merely, that the real explanation does not happen to occur to us. We know the true explanation, only the cerebral exchange does not connect us with the proper memory-cell. To illustrate:

On one occasion the great Da Costa, during an epidemic of smallpox, called to treat a child, made a diagnosis of variola; however, the next day a very inferior practician saw in it, correctly, a case of measles. The consumate master of diagnosis was being confronted by so many cases of smallpox that he did not think of the possibility of a stray instance of a disease not just then known to be present in that vicinity.

Here is another example: Some years ago D. D. Stewart uncovered in Philadelphia, a widely-spread prevalence of lead-poisoning from chrome-yellow buns. Many other physicians at once recognized this condition among their patients in cases that thus far had puzzled them. Probably every one of these men could have passed a creditable examination on lead poisoning, but the idea of such a possibility had not occurred to them.

So, again, the elder Wood once recognized a case of scurvy in one of his own colleagues of the faculty of the Medical Department of the University of Pennsylvania. Neither the victim nor any of his eminent advisers had thought of scurvy—one word brought realization.

Thus we might go on recalling instance after instance. Sir Astley Cooper opened an abscess and found it an aneurism. Thomas D. Mutter and Samuel D. Gross each operated before their classes on mammary cancers and found abscesses. Many a time the fault

lay in the clever diagnostician looking for the rare conditions and overlooking common, everyday things.

But we are straying from our subject, lay diagnosis. The patient's views should always receive consideration, not as fact, but as evidence—the doctor must be the judge. The "rheumatism" may be anything that hurts—neuralgia, neuritis, myalgia, gout, what not.

There is, for instance, the notable case of an old veteran who had drawn a pension from our Government for twenty years, and more, for what had been diagnosed as rheumatism. The record was clear, beginning before he had been mustered out, and showing that his trouble followed proved exposure capable of inducing rheumatism. This writer's later observation, however, showed the malady to be a slowly ascending myelitis, and of which the patient eventually died. There was no question as to the death resulting from the malady for which he had rightly been pensioned or as to its having been contracted in the line of duty. The death-certificate was made out in accordance with the facts—and thereupon our great and good Government, through the Pension Department, cancelled the pension, on the ground that the man's death was caused by myelitis, and not by rheumatism, as officially recorded. Evidence showing that it was the same disease, the difference being merely as to its proper designation, was ignored.

I am sorry for the doctor who does not give due weight to the patient's views; and still more so for him who does not manifest a knowledge far deeper and more comprehensive. The physician who can accept the lay view, and then so amplify and extend it that the patient, pleased and even elated that he himself has been found right, still feels that the doctor has told him a whole lot more about himself than he himself knew, has firmly established himself in the family's esteem.

"Doctor, the trouble with Joe is that he went to lodge last night, ate a big supper of lobster, beer, and Swiss cheese, and has his digestion all knocked out."

"Yes, Mrs. Joe, but he has the stomach of an ostrich, and would have carried it off had it not been that he has allowed himself to be constipated lately and the poisons, reabsorbed from his colon, have begun to affect his kidneys. He will have Bright's disease unless he reforms his ways and pays attention to himself; and his nightmare last night was really an epileptic fit."

This doctor accepts the family view, but he also takes his place as the expert, with a knowledge far ahead of theirs.

Every doctor should be examined by the state board, to see whether he has a well-developed bump of curiosity. So many interesting things are discovered upon search, that do not appear on the surface. Great as is the laboratory man, he is not a real doctor unless he has a profound knowledge of psychology and a keen interest in the study of man as an individual.

The ideal general practitioner is virile by virtue of his environment; he is self-reliant from his isolation; he is resourceful from necessity; he exalts common sense above fine theories; he deals with all conditions and preserves a breadth of vision; grasps general principles, and failing the finer technical knowledge of the specialist, is spared the distortion of his perspective. He knows the patient as a man and a friend and not as a commodity; and he it is who exemplifies best and most consistently that unselfish regard for others that glorifies medicine.—Meara, in Bost n Medical and Surgical Journal.

AMEBIC DYSENTERY

In the August number of CLINICAL MEDICINE, we printed an article by Dr. J. F. Roemer upon "Emetine in Amebic Dysentery." We have seldom published a paper commanding as much interest as this one has, in connection with the reports, in abstract, from England and France in which it is shown quite conclusively that in emetine hydrochloride we have a specific remedy for this form of chronic dysentery. Many physicians have written us for further information concerning this drug, and we know that a good many are now experimenting with it. We wish to hear from as many of these men as possible after they have tried the remedy in one or more cases.

We, therefore, want to urge all of you to send us full details of your experiences, for publication or not, as you prefer. Tell us about every case in which you used it, giving clinical symptoms, results, laboratory tests if any were made, and the effects produced by the emetine. What dose did you use? Was it injected hypodermatically or given by the mouth? Did improvement follow, and, if so, how soon? Was any collateral treatment employed, and what?

We consider this matter of extreme importance, and we are desirous of securing all possible data. Thus far we have not seen a single unfavorable report of a case of true amebic dysentery in which emetine was tried, and we have seen many reports. The drug,

however, is not curative except in the amebic form of dysentery, although without doubt it does benefit all types of the disease, through its stimulant action upon the hepatic and intestinal secretions.

To submit to life whiningly is not living. Life should be made active and joyous. It is so short that it is a pity to lose even a few moments of it in sadness.—Dr. Paul Dubois.

THE FAITH IN CACTUS AT LAST JUSTIFIED BY LABORATORY PROOF?

The announcement by Professor Groeber—a careful literal translation of which appears among the leading articles in this issue—to the effect that cactus grandiflorus positively contains a glucoside (not yet isolated) with a physiologic action similar to that of the digitalis principles, is bound to arouse keen interest in all those thousands of clinicians whose faith, based upon intelligent bedside observation, could not be shaken by adverse criticism, negative experiences by skeptics, or even ridicule and accusations of credulity. This article cannot but strengthen the confidence in this much-maligned yet valuable medicinal agent of every physician who for himself has tested out its virtues, while it should swell the number of recruits willing to give cactus a fair trial.

That direct laboratory proof of the pharmacologic activity of this drug should have been so long in coming forward, is a strange fact; still, those who have been prescribing cactus intelligently have never doubted that it contained some proximate principle capable of affecting the action of the heart, even though the chemist thus far had not succeeded in proving its existence or pharmacologic experimenters had announced negative results in the case of animals. However—evidence would be forthcoming some day; there was no doubt in the hearts of those men.

While, of course, the testimony of a single reporter—and that based upon relatively so few tests—will not be accepted by all as conclusive, we believe that ultimately there will be ample corroboration of Groeber's results. At all events, with more definite data to hand, the number of those taking up the thread will be large; and by and by we shall hear from them. Meantime, the account speaks for itself.

In passing, attention may be called to the fact that Dr. A. Groeber—the author of the report—is an assistant professor at the University of Berlin, and laboratory assistant to Professor Heffter, the director of the world-famed Pharmacologic Institute at Berlin. Any person who knows the painstaking care of the German laboratory worker, and who is familiar with the traditions and achievements of this great Institute, will not doubt for a moment the reliability of Groeber's report.

Professor Groeber compares cactus with digitalis and finds the remedy possessed of a definite action similar to yet less powerful than that of the second-named remedy, and he stops there. When the typical digitalis-action is desired—the profound stimulation of the heart-muscle and the constriction of the arterial coats so characteristic of this drug—then there is nothing to compare with the foxglove; but every physician who has used cactus and its concentrated preparations knows that it has a place peculiarly its own—that to *steady* the action of a disturbed heart, to give it a gentle *tone*, and to do this without danger of cumulative or other toxic effects, cactus is a remedy that can be depended upon.

Some months ago Professor John Uri Lloyd published in *The American Journal of Pharmacy* the results of an investigation carried on at great expense to determine what plant drugs were most generally used by American physicians. He received more than 10,000 reports, and when these had all been counted and classified he made the remarkable discovery that cactus headed the list! Some 6239 physicians declared it their favorite remedy.

This was no accident—we cannot believe that all these men were mistaken—and we hope and sincerely believe that Groeber's report (which you will, of course, read) will help to clear up the "mystery"—if mystery it be—concerning cactus. *Our* faith in it has never been shaken.

ARE YOU A DOCTOR?

"Do you anticipate large public wants and provide the means to satisfy them?" asks William DeWitt Hyde. "Do you watch progress all over the world and apply methods and devices, which succeed at one point, at similar points elsewhere? Can you make two blades of grass grow where but one grew before? Can you see clearly great undertakings before they are accomplished, calculate cost and profit, fill others with the vision, induce them to share the cost in the hope of the profit, and then make a good thing for them, a better for yourself, and the best of all for the community you improve and serve?

Then you are a captain of industry, a man of enterprise."

Let us, for our good, paraphrase this to the physician's case.

Do you see keenly the physical defects and needs of your patients and your community and furnish the ways and means of remedying them? Like Matthew Arnold's characterization of the Great Physician, do you

Take the suffering human race,
And read each wound—each weakness clear—
And strike your finger on the place,
And say, "Thou ailest here—and here?"

Do you watch medical progress all over the world, and avail yourself of every diagnostic and therapeutic measure that the research and clinical investigators put within your reach? Can you bid death be life and sickness be health? Can you see clearly pathologic and therapeutic processes which are invisible to the eye, pit your skill and your strength against them, inspire your patients with confidence and make them share the enthusiasm and the responsibility of the fight, and turn defeat into victory for yourself and them, and achieve a lasting benefit for the generation which you love and serve? Then you are a great physician, a true doctor.

Oh, believe me, there is a genius of medicine, just as there is a genius of business, and of music, and of art. Without it, the practice of medicine is a dreary, monotonous, often repulsive drudgery, or, what is worse, a sordid money-grubbing trade. With it, our work becomes a sacrament, dedicated to the service of humanity and brotherhood. Let me read you a little from Sir Mitchell Banks' beautiful comment on Luke Fields' equally beautiful picture of "The Doctor."

"The sick child, worn with raging fever, lies spent and exhausted. Till then, the parents have been fighting on, with their nursing, caressing, soothing, encouraging their little one, and hoping against hope seems all that is left to them. And there sits their friend, the gentle doctor, watching with them, and still puzzling his brain to think what more he can devise to stay the lamp of life from flickering out. He is no courtly physician, no specialist, that man, thank God. He is only a doctor. But his rugged face tells of honesty, and common sense, and self-reliance, and gentleness. What more do you want? The men that look like that man, whatever be their business or profession, I say, of such men is the kingdom of heaven."

Don't you and I want to belong to that order? Then it means toil, and sacrifice, and abnegation, and discipline, and alertness, and earnestness, and patience. One buys his initiation into this order, not with money, but with flesh and blood.

The heights by great men reached and kept
Were not attained by sudden flight,
But they, while their companions slept,
Were toiling upward in the night.

Yes, even the burning of midnight oil. Nowadays, more than ever in the history of medicine; for medicine has become a vast and swiftly moving cortege, with which the laggard will find it impossible to keep step.

The real physician of today is no longer a slinger of pills or a mixer of drafts. He is a seer of visions and a doer of big deeds. He must have the genius of medicine, just as the captain of industry must have the genius of business.

The attorney who defended F. A. Heinze, the "copper king," in his trial for misappropriation of the funds of the Mercantile National Bank, received a check for $800,000 for his services. If a physician had saved his life or that of one of his family, what would have been thought of such a fee?—Medical Council.

OBSOLETE IDEALS

Were I directing a public library instead of proscribing Alger and Optic, I should root out and burn every book for boys devoted to the inculcation of Contentment, Modesty, and Obedience.

Contentment?

I would supply the expanding, absorbing, assimilating mind of Youth with tales of discontent; of men who saw the wrongs of humanity, and burned with the desire to remedy them. Men who felt their own wants, needs, limitations, and were not content to remain passive under them, but who exerted themselves to better their conditions. For what is discontent but the recognition of the possibility of better things and the determination to win them?

How did it profit the many generations of French peasants that their manorial Seigneur possessed the right to open their abdomens and warms his cold feet among their bowels—and that they remained "contented?" The men who rose and exterminated the class who enjoyed such privileges taught the world the greatest lesson it had had in eighteen hundred years.

Discontent is the divine spark that distinguishes man from the brute. Discontent has swept the race along the path leading from the pithecanthropus to the triumphant product o today. Discontent will carry man

forward to the glories of the tomorrow. Hail to the goddess of Discontent, of Endeavor, of Progress.

Modesty?

Here we have the canker of the books to which I object as unfit reading for youth, as well as to the ideals upon which they are built. Modest worth that waits in the background until the lord of the manor recognizes it and bids it come forward and take a seat at his right hand. That necessitates a lord of the manor, a very superior being before whom modesty, and even immodesty, bow in lowly subservience. Immodesty needs no lord, no patron, no helper from outside. Immodesty pushes himself to the front, and stays there; unless some supreme, irresistible influence intervenes to push him back. Immodesty depends on himself, not on favor gained by truckling to superiors. Immodesty is usually designated as assurance or nerve.

A youngster was graduated from medical college and, without waiting for the traditional years of general practice and experience, began at once to do major surgery of the most advanced type. He even specialized on oophorectomy, an operation of which the then surgical colossus of the day had recently said, "I trust that no pupil of mine will ever be guilty of the crime of removing a woman's ovaries."

People said of the young surgeon, "What nerve!" The other doctors said, "The upstart!" His classmates said, "The gall of the man!" and that the man's "nerve," his assurance, "gall," rashness, defiance of precedent, and all that was to place him at the head of the great army of surgeons. Many have followed his example, and now it seems strange that any should object.

Obedience?

Obedience is the virtue of women—and of slaves. It is the virtue of the soldier, in the armies of industry as in those of war; for here efficiency and accomplishment depend upon the welding of the many into one homogeneous mass, a concentration of forces wielded by the will of the one. But obedience brings results won only by the sacrifice of the individuals—and there are limits. Obedience is to meet emergencies, to accomplish great ends, to oppose forces not to be resisted by the individual alone.

But modern war is founded, not on the compact masses of the Macedonian phalanx, but on the skirmish line developed by Sherman's soldiers. Individualism, with mutual concert and support, makes the warrior of today. The boy who acts only upon orders will never be a leader of men. The boy who questions, who stubbornly refuses to do until convinced of the right grows into the man to whom others look for guidance in times of stress and trouble.

Obedience, with assent and comprehension, is good; obedience through compulsion, is slavery.

Of all men, physicians are the most enslaved to tenet, to authority. The nature of their calling and the heavy responsibility makes them so. Innovation gets to seem to them a crime. Should a patient die, if the "most approved treatment" and the highest authority have been followed, one may be philosophic and pass it by with the thought that "all men must die."

Let a radical, revolutionary improvement, like the alkaloidal method, be introduced, and, as it becomes firmly established, the innovation in time is forgiven; but the innovator never.

There is an old therapeutic epigram which is worth remembering: "Frapper fort et frapper vite"—strike strongly and strike quickly. It is a worthy companion to "Small doses frequently repeated to effect."

ALL A DOCTOR—OR HALF A DOCTOR?

One of the most conspicuous features of the International Congress of Hygiene held last fall in Washington (it is a little late to be drawing lessons from this event—but never mind) was the success that was reported in the department devoted to infectious diseases. And, in contemplating the matter, it seems to me still more significant that this unprecedented success is owing to the fact that the medical and hygienic sciences are now combatting these diseases at every assailable point.

In the first place, science is attacking the germs themselves, in their habitats and in their channels of communication. It is tracking these pathogenic organisms to their lairs and carrying the fight into the very sources of their generation and multiplication. Then it is following up the ways and agencies by which they find their way into the human system, and is engaged in effectively blocking their path. And, lastly, recognizing the fallibility of these other methods, science, by an artificial immunizing of the system, is preparing the human body against possible invasion of various germs. So, with these enemies of human life, as with the enemies of ancient Israel, "him that escapeth the

sword of Hazael shall Jehu slay, and him that escapeth the sword of Jehu shall Elisha slay."

There is, I think, an excellent lesson here for therapeutics and for the therapeutists in general. In our zeal for this and that particular modern method of treatment, we are, perhaps, a little prone to rely too exclusively upon that one measure, to the neglect of all others. In other words, we are prone to allow the newer therapeutic modes and agencies to supersede those which we already had, instead of reinforcing them. So, for example, in those very diseases of which I have just spoken, the infectious diseases, because science has put into our hands the serums and bacterins (which are most welcome and powerful weapons—there is not the least idea of belittling them), there is, I think, a certain disposition to rely upon them altogether, and to discard the older drug and physiologic treatment that we used to employ.

That is neither wise nor rational. The wise financier does not put all his eggs into one basket. The wise general does not throw all his attacking or defending forces into one trench. The former distributes his investments—"supports his market," in technical terms—so that the net result of his activities may be a safe and profitable return. The latter fortifies every possible and probable avenue of attack and defense, so that he may not be surprised at any point, and to insure the most effective work being accomplished by his *piece de resistance*.

By the same token, the wise physician will not stake his entire hope of success upon one single therapeutic measure, for he knows, or ought to know, that all the processes of nature are complex. No disease rests upon a single, simple morbid entity that can be met with a single, simple therapeutic measure. On the contrary, every disease ramifies into practically every phase and function of the organism, and needs to be combatted from every available angle.

Consider, once again, the infectious diseases. Assume that a specific bacterin is at hand for a given infection. This bacterin stimulates the opsonic activity of the blood, but, if there be not an adequate supply of leukocytes and of nuclein elements, the opsonic stimulation will fall short of its effect.

Hence, the wise physician, in conjunction with his bacterin treatment, will strive to raise the blood-index by the administration of nucleins, and in chronic cases will use the arsenates also.

Again, in localized infections (and the majority of infections are localized), it is necessary, in order to get the full benefit of blood defenses, to insure the focus of the invasion thoroughly and continuously being supplied with vital, circulating blood. Therefore, the wise physician will reinforce his bacterins and his nucleins with circulatory equalizers and vasodilators which will mobilize his defensive forces to the point where they are needed.

And last, but not least, one cannot expect to do effective work, either offensive or defensive, where the debris of battle is permitted to accumulate, choking the avenues of advance and poisoning the air. And, so, the far-seeing therapeutist will take care that during the conflict with microorganisms the intestinal canal is "cleaned out, cleaned up, and kept clean."

All of which is simply illustrative detail, designed to point the moral and exemplify the principle. New progress in medicine does not repeal and invalidate all that has gone before. It adds to and illumines it. Because new fresh troops are sent to our aid, we should not for that reason muster out those that we have, those which have proven their mettle in hard-won battles. Rather, the reinforcements enable us to use our old forces to much better and more intelligent advantage; and with both the old and the new we should find ourselves able the more thoroughly to guard and attack every point of our own and of the enemy's line.

Science sans expérience
N'apporte pas grand assurance.
—Ambroise Paré.

THE N.A.R.D. AND THE NATIONAL ANTINARCOTIC LAW

The delegates to the meeting of the National Association of Retail Druggists devoted a very large share of the time during their last convention—held in Cincinnati August 25 to 29—to the discussion of the Harrison Antinarcotic Bill (H. B. 6282) recently passed by the House of Representatives and now pending in the United States Senate. This bill, as already stated in these pages, was drafted by the National Drug Trades Conference, consisting of fifteen delegates, three from each of five different associations representing the drug trade in all its branches.

The retail druggists were represented by six delegates, three each from the American Pharmaceutical Association and from the

National Association of Retail Druggists. It was generally supposed that the conference bill had been unanimously endorsed by all these delegates, but it seems that one representative of the N. A. R. D., Mr. Frank H. Freericks, the general counsel of the latter association, was opposed to it, principally on the ground that, in his opinion, it was too favorable to dispensing physicians.

In other words, of the fifteen men who framed this bill, fourteen were in favor of it and endorsed it without open qualification. One man opposed it. However, this one man happens to be a person of considerable influence, an able speaker, and of remarkably magnetic personality. It was Mr. Freericks who led the fight against the endorsement of the Harrison Bill at the meeting of the N. A. R. D. He opposed the adoption of the report of the Committee on National Legislation and made a minority report, which, after a discussion extending over two days and a considerable portion of one night, was finally adopted by the delegates of the N. A. R. D. by a vote of practically two to one.

While Mr. Freericks and his associates opposed the Harrison Bill upon a number of grounds, their principal objection to it—the one which overshadowed all others—was the failure of the bill to place heavy burdens upon dispensing physicians.

The N. A. R. D. is frankly anxious to secure legislation that will make it difficult or perilous for physicians to carry and dispense their own drugs. The kind of antinarcotic bill which Mr. Freericks desires is one which will make it practically impossible for physicians to dispense this important class of emergency-remedies. Apparently he wishes it to be so framed that no physician will feel safe in administering opium, coca, and their alkaloids, except by writing prescriptions for them; thereby compelling every doctor to patronize the druggist, regardless of his own interests and equally regardless of the welfare of his patients, as he sees it.

Several objections made by Mr. Freericks and his associates, and embodied in the minority report, are as follows:

1. According to the Harrison Antinarcotic Bill, the pharmacist will be compelled to preserve for a period of two years all prescriptions calling for these narcotic drugs. The physician, on the other hand, will not be compelled to keep a record of "sales." However, like every person registered under the act, he will be required to keep a record, on an official order blank furnished by the government, of all purchases of these drugs or their compounds or combinations. If he uses these drugs in unusual or improper quantities, he can—and probably will—be "spotted" quickly.

2. Mr. Freericks would like to exempt from the operations of the act all physicians who do not dispense their own medicines—in other words, secure legal discrimination against one class of doctors, i. e., the dispensers. He neglects to call attention to the well-known fact that practically every physician in the United States does dispense narcotic drugs every time he uses a hypodermic syringe, puts a drop of cocaine in the eye or gives a dose of codeine or a minute quantity of morphine to relieve pain of any character; he is "dispensing" just as much as the doctor who carries a full line of drugs for all conditions which he may be called upon to treat.

3. He is afraid that the two-thousand-dollar fine and five-years' imprisonment provided for the violation of the act may get the druggist into difficulties, because the latter has no way of knowing positively just what physicians are or are not licensed under the act to prescribe these drugs. Yet it should be easy enough for each druggist to learn whether the physicians in his own community are registered or not.

4. He believes that the bill is unconstitutional, since it interferes with the exercise of the police-power of the states. On the other hand, no such objection has been raised by the constitutional lawyers in Congress; and other attorneys, not less learned than Mr. Freericks, fail to see the force of this argument.

5. He objects, finally, because it permits distribution direct to consumers of preparations containing minimum quantities of narcotics—a legitimate objection, which was really a concession to the proprietary interests and to the druggists themselves. At the National Drug Conference, Mr. Freericks did not press this point—or, if he did, we did not hear him.

It is practically impossible to mention here, even in abstract, all the arguments brought forward either in support of or against the Harrison Bill at this meeting. However, again and again the speakers made it plain that the central intent, the real purpose behind all this opposition, as well as behind all the legislation (both state and national) proposed by this association designed to control

the sale of drugs, was, as one speaker put it, to "get the dispensing doctor."

The abatement of the great narcotic evil seemed to be of far less importance in the minds of the objectors than the enactment of a law that would be, primarily, of financial interest to the retail druggist. Mr. Freericks, in his able argument, made the statement that he would much prefer an indefinite postponement of this national legislation unless a bill such as he desired, and such as he advocated, could be passed.

The spirit of the meeting was well epitomized by the president of the N. A. R. D., Mr. Henry W. Merritt, who, in his address, under the subtitle "The Dispensing Doctor Unsafe," spoke as follows:

> The number of physicians who dispense their own medicines continues to increase. Pharmacy is fast becoming a lost art in all but the larger cities, and even there the evil is growing apace. Medical dispensing is prohibited by law in Germany, Austria, and all other continental nations, on the ground that it is not only a menace to public health but to public safety as well—that it is both unwise and unsafe to vest in one man the right to diagnose, to prescribe, to dispense the remedy, to administer it, and then, if death ensues, as the result perhaps of ignorance or carelessness or even of criminal intent, to write the death-certificate, thus burying with the patient all evidence of the crime.
>
> But this is not all. Though by far the greater proportion of all medicines dispensed nowadays is by the doctors themselves, and, though *it is a notorious fact that perhaps a majority of them dispense medicines of the cheapest and poorest quality*, for which pharmacists and manufacturers would suffer heavy penalties under federal and state laws, these medical men may nevertheless snap their fingers at all pure-drug legislation and dispense whatever they please with entire impunity. Is this right? Is this discrimination against competent pharmacists and in favor of pharmaceutically incompetent physicians right? Is it consistent in doctors to rage against impure and secret medicines and to demand punitive legislation and themselves be guilty of the offense in the worst form, only to assert their right, not only to immunity from punishment, but to exemption also from any sort of inquiry into their acts?
>
> The better class of physicians deplore existing conditions which they assert are mainly due to medical competition. One dispensing doctor can drive the physicians of a whole community into the practice. Relief from the burden can be secured only through legislation, and in this reform pharmacists may count on the support of all physicians who put the welfare of their patients above the promptings of dollars tainted with insincerity, inconsistency, and a degrading commercialism.
>
> The remedy is not in direct prohibition, perhaps, as this would doubtless be found extremely difficult of application; but, in providing, first, that the physicians who choose to be their own pharmacists shall furnish their patients with prescriptions for all remedies supplied just as they would if the prescriptions were to be dispensed by licensed pharmacists; and, second, in cases of fatal termination, the local health-officer, and not the dispensing physician, shall certify the cause of the death.

We present this matter, not because we have any antagonism toward or unfriendliness for the retail druggist, for we have not. Indeed, the average retail druggist we believe is an honest, capable man, desirous of giving his patrons good service and good drugs; but we also consider it our duty to present to the medical profession the exact situation.

That there is a considerable number of men of influence among the druggists who are trying with all their power to secure repressive legislation against the medical profession, legislation which is primarily intended to benefit themselves at the expense of others, and not first of all for the welfare of the people, is perfectly apparent. This fight in the N. A. R. D. over the Harrison Bill indicates clearly that this is the case.

Now, that Mr. Freericks has won out with his minority report, we may expect that a determined assault will be made upon Congress by this Association, to secure the amendment of the Harrison Bill in such a way that the greatest possible injury may be done to the dispensing physician.

From a legislative point of view, the N. A. R. D. is most carefully organized. It has its branch-workers in every state; it is closely in touch with our legislators and there is no doubt it is determined to bring all the influence it can to secure its ends by legislative means. Unfortunately the medical profession is not so organized. Almost none of its societies has interested itself in the question of legislation, and whatever is accomplished by physicians must be accomplished individually rather than collectively.

Therefore, we most earnestly urge that every physician who desires to maintain his independence and his right to practice medicine freely and without interference should make his wants known regarding the Harrison Bill, and write immediately to his United States Senators, urging its passage exactly as it stands.

There is nothing in this bill, as Mr. Freericks has so strenuously endeavored to show, which permits the physician to "peddle" narcotic drugs. On the contrary, the excessive use of these drugs in a man's practice, once this bill becomes a law, can readily be detected by the federal inspector; and if he goes astray he will be liable to prosecution and punishment by the state and federal authorities.

We ask no exemption for the doctor for wrongdoing; he should be punished like other men; but we do demand that, in the practice

of his calling, in the relief of pain and the amelioration of suffering of all kinds, he should be hampered as little as possible. That is all the doctor asks or ever has asked.

One word more: The physicians of this country, whether they dispense or whether they prescribe, resent the oft-repeated accusation made by a few retail druggists—and, so far as we know, by retail druggists only—that "a majority of them dispense medicines of the cheapest and poorest quality."

This statement is absolutely untrue. The practicing physician is more interested in securing good drugs than is any other man; and the sinister suggestion, that he uses poor stuff, while the druggist in his town handles good drugs, and good drugs only, will not serve to bring physicians and druggists closer together—a consummation which is greatly to be desired and which can be brought about only by the recognition on both sides of the essential integrity, ability, and rightmindedness of both parties.

In the opinion of this writer, those of our druggist friends who are so strenuously demanding the enactment of laws intended to put the dispensing doctor out of business are doing more toward driving the doctors away from their stores than anybody or anything else.

Again we urge every reader of CLINICAL MEDICINE to use all the power in his possession, all the influence he can command, to secure the passage, unamended, by the United States Senate, of House Bill 6282. This bill will do more to abate the narcotic evil than anything heretofore suggested. It is a good bill and should command the support of every physician. Act, and act quickly!

Life is made up not of great sacrifices or duties, but of little things, in which smiles and kindnesses and small obligations, given habitually, are what win and preserve the heart, and secure comfort.—Sir Humphrey Davy.

ARE YOU AFRAID?

The Byzantine Greco-Romans disputed as to how many angels could dance on the point of a needle when the Turks were assaulting the walls of their city. In the "Battle of the Books," its author held up to derision the rash innovator who thought that the moderns could possibly produce any literature worthy of being ranged by the side of the classics.

Today is practical. It busies itself with the myriad problems pressing for immediate solution, and has no time nor energy to consider what other men thought, believed or did at other periods of the world's history. Today is thoroughly in harmony with the youth who, reproached that he did not even know who the Romans were, indignantly responded that he read his Bible as much as anybody in the house! Only, that Today doesn't read its Bible. The dailies are all the reading Today finds time to do, and it takes a stretch to include the Sunday edition, even though no individual peruses more than a selection from it.

Has anybody time for abstract reasoning? Has anybody else time to read the results of abstract reasoning? Hardly; and, yet, there is nothing so practical, so useful, so essential to the busy man of today as some abstract thought.

Take this little duodecimo of 128 pages by Stanley Le Fevre Krebs—"Twin Demons, or The Four-Headed Dragons." He discusses the psychology of fear.

Does that affect you?

Reader, I do not know whether you are man or woman, educated or illiterate, layman or doctor; but I venture to assert that there is not any one thing that interests you personally so much or so practically in its bearing on your life, your work, your success in the world.

Are you afraid? Of what? How?

Krebs discusses the nature of fear, its causes, its curse; devotes 22 pages to its cure; then has a word about worry.

Fear is the result of four causes—physical, ethical, mental, and spiritual. Physical: eat a lobster supper—and note your dreams. Ethical: "one can not be happy as long as he is [he feels himself] guilty." Mental: "ignorance is the prolific mother of a swarming brood of immeasurable fears." Spiritual: "lack of faith, loss of trust, in God."

Don't worry—he is not preaching. "A truly intelligent man trusts God. Credulity and superstition are evidences of a childish faith, badges of ignorance, breeders of all sorts of fears and harassments, senseless ceremonies and cruel sacrifices."

The effects exerted by fear upon the bodily functions are touched upon, graphically but not exhaustively—just enough.

The Cure: "No man is respectable who is not doing his best." "Take care of your health." "You can control or check an oncoming fit of fear by deep breathing." Use the erect posture habitually. Several methods are given in detail—very interesting:

"It is worrying over the loss of sleep rather than the loss itself that makes thousands of people miserable." "Do your duty." "Culti-

vate the spirit of love." "Assert the law of ignorance." "Wait." "Fear and worry are a weak habit of thought." "Reason your fears up by the roots." "The Bible is the invaluable record of the development of the God-consciousness of a particular people." Dean Hodges says: "St. Martha is the patron-saint of American women and St. Vitus of American men." "Worry is a twin-demon, a sister dragon with four heads." Worry kills. It beclouds judgment.

"Don't worry—but work;
Don't fear—but follow;
Don't pine—but pray;
Don't trouble—but trust."

ANTITYPHOID VACCINATION IN THE ARMY

During the first five months of the year 1913, not a single case of typhoid fever occurred in the United States Army; indeed, the last case (according to Major Frederick F. Russell, in a paper read at the last annual meeting of the American Medical Association in June) was one reported on December 19, 1912, and this occurred in a man who had not been vaccinated against the disease. This probably is the most remarkable record ever made in this or any other army, and is conclusive testimony as to the prophylactic value of antityphoid vaccination.

Voluntary vaccination against typhoid fever was begun in the Army in 1909; 830 men being vaccinated during that year, when there were 173 cases, and 16 deaths. In 1910, 16,093 men were immunized, and there were 129 cases, and 9 deaths. In March, 1911, vaccination was made compulsory in the maneuver-division in Texas, and approximately 20,000 men assembled along the Mexican border were subjected to the treatment. In June of the same year, this method of immunization was extended to recruits, and since then all men entering the service have been given an initial injection of typhoid vaccine on the first day of service, in addition to the vaccination against smallpox. In the last quarter of 1911, antityphoid vaccination of all persons in military service under forty-five years of age was made compulsory. During this year (1911), there occurred in the Army 44 cases of typhoid fever and 6 deaths.

In 1912, this method of prevention being now compulsory upon practically every man in the Army, the number of cases among the 58,119 men serving in the United States fell to 15, and there were but 2 deaths. In the entire Army, at home and abroad, including officers and enlisted men, 88,478 in all, there were 27 cases of typhoid fever, and 4 deaths. It should be added, however, that of the 27 who contracted typhoid fever, only 8 had actually been vaccinated, and of these none died.

The practical result, given in detail, is, that since the method of vaccination against typhoid fever has been made compulsory in the United States Army not a single vaccinated soldier has died of that disease.

Can there be more conclusive evidence of the value of this method of preventing typhoid fever than this? While we know that modern methods of sanitation, especially as applied to camp-life, have aided greatly in the reduction of the extent of this disease, we may add that typhoid-immunization has now removed absolutely every reason for any person being attacked by that disease. And more than that, this method of treatment is free from danger. Says Major Russell:

"During the past four years, over 200,000 persons, mostly in the military or naval services, have been immunized without any fatalities or untoward results. There have been no reports of cases indicating that the vaccination has activated latent tuberculosis or any other disease; in fact, as regards tuberculosis, there has actually been a diminution in the number of cases of all classes of tuberculosis during this period."

Major Russell closes his paper with the following pertinent statement: "It [typhoid vaccination] will certainly be as efficacious in civil life as in the Army, and its more general use will hasten the time when typhoid fever will become a neglible factor in our public-health problems."

He or she that is idle, be they of what condition they will, never so rich, so well allied, fortunate, happy, let them have all things in abundance and felicity that heart can wish and desire, all contentment—so long as he or she or they are idle, they shall never be pleased, never well in body or mind, but weary still, sickly still, vexed still, loathing still, weeping, sighing, grieving, suspecting, offended with the world, with every object, wishing themselves gone or dead, or else carried away with some foolish phantasy or other.—Burton's "Anatomy of Melancholy."

WHAT IS RHEUMATISM?

With what startling rapidity fashions do change! It doesn't seem so very long ago that every woman wore crinoline, and did her hair up in curl-papers. Then came bustles, then "Mother Hubbards," then puffed sleeves, then no sleeves at all, and now, finally, we have the slit skirt and the diaphanous gown. What next?

Hypotheses change in medicine almost as frequently as do styles in dress. Take rheumatism, for instance. Pick up the text-book on medicine you studied when you were in college, and you will find a grave discussion of the lactic-acid theory, with the correlated advice to adopt the alkaline plan of medication. Hardly were you embarked in practice, before Haig presented his fascinating uric-acid hypothesis, which veritably swept you off your feet. It was so rational, so plausible, that it won instant acceptance by ninety percent of the profession. But the other ten percent doubted—and in another decade these had their innings.

By this time, the bacterial tide was on. The germ was everywhere and everything, and Poynton and Paine's discovery that a streptococcus was present in many rheumatic joints served to fortify the opinions of the growing class who believed that "rheumatism" was caused by a specific microorganism. But the flaw in the chain of reasoning was the fact that clinically the disease presented itself of different types. For instance, gonorrheal arthritis was known to be connected in some way with gonorrheal urethritis, while the more chronic forms of arthritis did not fit into the accepted scheme of rheumatism—arthritis deformans, for instance.

The latest conception of rheumatism is probably that expressed by Ely in *The Journal of the American Medical Association*; namely, that every case of rheumatism is caused, somehow, by microorganisms, and that every chronic arthritis, particularly, is the result of a focal infection at some point more or less remote in the body of the patient.

"Every one of these cases," writes Ely, "furnishes a field for patient study, and the more thorough the study is, the more frequently a focus of infection will be found in some other lymphoid tissue of the body—a diseased tonsil, appendix, lymph-follicle or lymph-node. A suppurating tooth-socket, nasal sinus or ear may be responsible, or a chronic intestinal infection, according to some authorities." And, as he explains further, almost any germ may be responsible—the clinical effects, in any event, are almost identical.

English physicians have been following this lead more studiously and more energetically than have American members of the profession; and we have been interested to observe how often their researches have led them back to that *fons et origo mali*, the alimentary canal. The tonsil probably is accused more often of being responsible for evil than any other bit of tissue in the body—meaning an *infected* tonsil, of course. Now, however, we are told that disease of the tooth-socket—pyorrhea—fosters rheumatoid arthritis, while English bacteriologists are working diligently on the intestinal flora, which swarms with streptococci and contains numerous other germs, one of which, a "staphyloid" organism, seems associated with the disease in many instances.

The proof of the hypothesis resembles somewhat the "proof of the pudding"—it's in the treatment. The first, and essential thing is, to remove the cause, when this is possible. If there is an unsound tonsil, out with it; if there is pyorrhea, then attend to the offending teeth, extracting or treating locally, as may be required; the advice to "clean out and clean up" the intestine covers all indicated treatment to this portion of the alimentary tract. Abscess cavities are to be emptied and drained wherever found.

In addition to this etiologic treatment, we now have bacteriotherapy. Excellent results are being reported from the use of autogenous and stock bacterins. For instance, we know of a number of instances of acute rheumatism where the acute symptoms subsided rapidly after the injection of streptococcus and mixed bacterins; while even arthritis deformas has been cured, apparently, by vaccination with dead bacteria secured from a focal point of infection.

Such vaccination is worthy certainly of trial in every one of these cases, and many times cures may be expected; although we cannot hope to restore function to joints the articulating surfaces of which have been destroyed or which have become ankylosed.

Does this new conception of rheumatism (as being the expression in a joint of a bacterial infection beginning elsewhere) mean that we should give up the older drugs, the salicylates, the alkalis, the eliminants, the heart tonics, and all the rest? By no means. These *drugs* have been tried and found good on many a hard-fought battle-field with this chameleon-tinted disease. They meet conditions, some of which may be incidental but other of which undoubtedly are etiologic, and they are here to stay.

The new hypothesis is what is on trial. It promises much to answer the question, What is rheumatism? and we have considerable faith in its ability to do so, because it is "proving out" in practice. But—another and better hypothesis may be here tomorrow. Who knows?

Leading Articles

Diabetes Mellitus

What It Is and How to Treat It

By W. C. WOLVERTON, M. D., Linton, North Dakota

EDITORIAL NOTE.—Within the last few years, thanks largely to the genius of Professor Carl von Noorden, we have learned much concerning the etiology and pathogenesis of diabetes mellitus, and this knowledge has given us new ground to stand upon in treating the disease. This newer knowledge is given concisely and in a most interesting form by Dr. Wolverton. He will continue this topic next month, with a discussion of the treatment.

FROM time immemorial, the subject of diabetes, especially as regards its etiology and pathology, has been shrouded in mystery; and it is only recently that much light has been thrown upon this dark subject. We, as physicians, naturally are most concerned with the rational treatment of this condition; but, in the light of recent discoveries as to the nature of diabetes, it would seem foolish to plunge at once into the treatment of this condition, without first considering briefly what is known of the real factors involved in the production of diabetes.

It is safe to say that the idea about diabetes entertained by the majority of the medical profession at the present time could be summed up by saying, that it is a disease characterized by glycosuria as the predominating symptom; by a tendency to the development of certain complications, such as furuncles, carbuncles, and gangrene of the extremities; that the pancreas is in some way responsible for diabetes; that the disease is incurable, ending in coma and death; and, as regards treatment, that carbohydrates should indiscriminately be cut out of the diet.

It is with the hope of correcting the erroneous ideas commonly held by the rank and file of the profession concerning diabetes and its treatment that this paper is undertaken. For the light shed upon this formerly little-understood disease-entity, we are especially indebted to Prof. Carl von Noorden; and it is from his latest work upon the subject that I have largely drawn my ideas concerning the theory of diabetes.

Sources of Sugar (Glucose)—First, Carbohydrates

1. All pure *carbohydrates* and the chemically related substances present in human food play an important part as sources of sugar (glucose). It is very probable that in healthy men living under the usual conditions of nutrition, nearly all the absorbed carbohydrates reappear in the liver as deposits of glycogen, and that only slight traces immediately pass through the liver and reach the general circulation. The latter condition occurs in healthy men only when excessive quantities of sugar are ingested and after absorption make too great demands upon rapid assimilation and fixation (as glycogen) by the liver; the subsequent overflooding of the blood stream with glucose (hyperglycemia) being a step toward the condition termed "alimentary glycosuria."

With the diabetic patient, however, it is an entirely different matter. One of the most important phases of the disturbance of his metabolism is the fact that the hepatic cells are unable to fix the carbohydrates; that is, to store it up as glycogen. The disturbance probably does not consist in any inability to convert the glucose into glycogen, but is owing to a tendency to decompose the newly formed glycogen too rapidly, resulting in a flooding of the blood with glucose. As the diabetes progresses, this decomposition ex-

tends more rapidly and completely, and in the same degree increases the danger of hyperglycemia (excess of glucose in the blood) and of glycosuria.

The carbohydrates, therefore, constitute a source of sugar for the diabetic as for the healthy individual; but the tissues of the former have lost the power of storing the materials in depots (as glycogen) and taking them out of store (as glucose) as demands arise.

Protein as a Source of Sugar

2. *Proteins* also yield sugar, and it is quite clear that the majority of proteins contain a carbohydrate group, which is split off by the action of pepsin and hydrochloric acid and in due course of time reaches the liver through the portal vein. It is a quite remarkable fact that some proteins which contain very little carbohydrate, such as muscle-albumin and casein, act as marked excitants of sugar production; while, on the other hand, egg-albumin, which is particularly rich in carbohydrate, does not especially affect the formation of sugar.

About 40 percent of the total protein molecule, according to Graham Lusk, consists of the amino-acid group. If a diabetic patient or a depancreatized dog be fed upon amino-acids, the glycosuria increases. Although there is at present no certainty that the amino-acids are definite and direct sources of sugar, the same result is bound to follow as if they were, if these substances in ever the same proportion incite the formation of sugar, although they themselves are not the material from which the sugar is built up.

Extraordinary differences in toleration of vegetable and animal proteins are exhibited by diabetic patients. If in a severe diabetes a dietary which is poor in carbohydrates and of low albumin content is followed, and which suffices to exclude glycosuria; and if to this dietary we then add 80 or 100 Grams of glidin (Klopfer), a purely vegetable albumin, the urine remains free from glucose, or nearly so. But, if instead of the glidin we add a similar quantity of meat-albumin, then a marked glycosuria appears, and persists even after the animal albumin ceases to be administered.

Of the proteins (albuminous substances), meat is dealt with least well of all (i. e., under its ingestion the glycosuria increases to the greatest extent); next comes casein; then follows egg-albumin; finally, there is vegetable albumin, and of this type glidin gives the best results.

Fish constitute a form of albuminous food that has long been recognized as being peculiarly useful to diabetics. But oysters must be avoided, on account of the high glycogen content of the liver.

Concerning proteins in general in diabetes, we may safely say that the proportion of the formation of sugar from albumin is not the dominant feature, but that certain protein substances, namely, certain peptids or polypeptids, act upon the liver as powerful inciters to the formation of sugar.

Fats as a Source of Sugar

3. *Fats* form a third source of sugar. The elaboration of sugar from fat by the liver may be termed a facultative process. It seems probable that, when its glycogen content is too abundant, it builds up fat and that this fat is carried to the fat stores. On the other hand, the poverty of the liver-cells in glycogen may indicate the time for the beginning of the manufacture of sugar from fat. Then will follow a vigorous retransport of fat from the fat-depots to the liver-cells (the "sugar-factory" of von Noorden). This has been demonstrated experimentally in phloridzinized dogs, and may be seen clinically in cases of severe diabetes.

According to von Noorden, the muscle-cells can not effect a direct oxidation of fats; the stored-up fat must first be returned to the liver, the cells of which elaborate the fat into sugar, which is then carried to the muscle-cells; where the sugar is oxidized, with the production of energy and heat. It seems probable that glycogen is not formed during the manufacture of sugar from fat. The normal healthy liver forms carbohydrates (sugar; i. e., glucose) from hydrocarbons (fats) only when it is necessary to do so in order to maintain the normal sugar content of the blood and supply the needs of the tissues.||

It is probable that certain parts of the fatty-acid molecule may be amidized before they are further broken down. There now seems little doubt that acetone bodies occur during normal intermediate metabolism, but most probably in limited quantities only. Under ordinary conditions, they are at once further decomposed.

Now, under all conditions in which acetone, diacetic and betaoxybutyric acids appear in the blood and urine, glycogen is always entirely absent, or nearly so, from the liver-cells. From all of which it appears reasonably clear that the presence of glycogen in the hepatic cells hinders the formation of acetone bodies or hastens their further decomposition.

This makes plain the occurrence of acetonuria and acidosis in diabetics, whose liver-cells have lost their power of glycogen fixation (or the storing up of glycogen).

The Theory of Sugar-Metabolism in Brief

The control of sugar formation is resident in the liver, and its distribution takes place from this all important organ. Other organs elaborate and consume sugar, but do not share in its production, it being left to the liver to supply the organism in general with sugar.

Summing up what has already been said concerning the sources of sugar, we may state in brief that the following processes occur in the liver:

1. The arrest of carbohydrates absorbed from the intestinal canal, flowing in through the portal vein.

2. The conversion of these carbohydrates into glycogen (animal starch), and quite likely into fat when there is a great excess.

3. When the supply of carbohydrates reaching the liver is unusually large, or when its absorption from the intestinal canal is very rapid, the glycogenic function of the liver is temporarily embarrassed, and a portion of the absorbed carbohydrates escape conversion into glycogen and enter the general circulation as glucose. This leads first to hyperglycemia, and eventually to "alimentary glycosuria."

4. Intrahepatic breaking down of the protein molecule leads to a certain amount of sugar formation; but the details of this chemistry are obscure. It is quite probable that proteins are of more importance as incitants to sugar formation than as an actual source of sugar.

5. If the carbohydrates and, in emergencies, the protein nuclei, are insufficient to supply the required amount of sugar, the latter is formed from fats.

6. The liver possesses a diastatic power by which the stored-up glycogen is reconverted into glucose. This glucose leaves the liver through the portal vein.

While, as we have shown, the sugar (glucose) metabolized (used up, oxidized) by the body-tissues (especially the muscle-cells) is derived from all three classes of food-materials (carbohydrates, proteins, and fats), the formation of sugar by the hepatic cells may be regarded as a single process, which has for its object the maintenance of the sugar content of the blood at a nearly constant level and the supplying of sugar to the tissues.

The amount of sugar metabolized (oxidized or burned) by the tissues varies widely under changing conditions and requirements, but the percentage of glucose in the blood remains remarkably constant; showing the regulating power of the liver.

The normal sugar content of the blood is about 0.07 to 0.09 percent. As the result of prolonged severe muscular exertion, the percentage falls only a little, to about 0.06 to 0.05 percent; here, the sugar is used up so rapidly that production cannot keep pace with consumption. In the normal individual, sugar equilibrium is soon regained when rest is obtained.

We do not know the nature of the signal which informs the liver of the tissues' need of sugar. Possibly it is the lowered amount of sugar in the hepatic artery; or it may be the chemical products of the catabolism of sugar in the cells of muscles and glands; these katabolic products acting as hormones upon the hepatic cells, stimulating the latter to increased production of sugar.

There is evidence to indicate that the "signaling" process is a very complicated one; that is to say, the signals are not transmitted directly to the liver, but first pass through the pancreas or suprarenal bodies, both of which, through their internal secretions, exert a powerful influence upon the sugar production of the liver.

Whatever path these stimuli to sugar formation may take, we may be assured that normally they originate *in the tissues;* which is to say, that it is the requirements of the tissues which form the dominant factor in regulating the amount of sugar production.

The excitability of the sugar-producing mechanism is not uniformly great, and is in only small degree dependent upon the condition of the liver itself. The liver may be the seat of severe pathologic conditions, without the appearance of glycosuria, or even of hyperglycemia. It is only in cases of the most profound degenerative changes in the hepatic parenchyma, such as in acute yellow atrophy and in phosphorus poisoning, that glycosuria appears as a direct result of the hepatic disease.

The really important influences upon the production of sugar by the liver are those of other organs, namely, the pancreas, suprarenals, and, to a less degree, the thyroid and parathyroid bodies, the pituitary body (the ductless glands, all having an internal secretion), and the sympathetic nervous system.

The Ductless Glands and Sugar-formation

The *pancreas* acts as a brake upon the sugar-producing mechanism, its inhibitory

action being due to the internal secretion elaborated by those peculiar collections of pancreatic cells known as the "islands of Langerhans."

When the islands of Langerhans are atrophied or destroyed by pathologic processes, the inhibitory action of the pancreas upon the sugar mechanism is removed and the excitability of the hepatic cells is enormously increased; the control no longer exists which formerly preserved the equilibrium between sugar production and sugar requirements. More sugar is produced by the liver than is required by the tissues; the blood is flooded with glucose, and this exceedingly valuable source of energy escapes unchecked in the urine. The liver no longer has the power to store up glycogen, and the flood of carbohydrates pouring in from the portal vein is passed on into the general circulation without the intermediate change into glycogen and back again to glucose as occasion may require.

In experimental diabetes in dogs and in severe diabetes in men, the liver contains no glycogen, for the reason just stated; that is, the absence of the inhibitory action of the internal secretion of the pancreas.

The *suprarenal bodies* are a second factor of importance in regulating the excitability of the sugar-mechanism.

The influence of adrenalin, the internal secretion of the suprarenal glands, is directly opposed to that of the pancreas, being one of stimulation. Adrenalin causes a rapid expulsion of glycogen from the liver; the blood is flooded with sugar, and glycosuria results. After extirpation of the suprarenal glands, the proportion of sugar in the blood falls markedly—to 0.05 percent or lower. This is also true in Addison's disease (a disease affecting the suprarenal glands primarily).

When the inhibitory action of the pancreas fails, as in severe diabetes, the liver is especially susceptible to stimulation by adrenalin. Quite small doses, which would be without appreciable effect upon healthy persons, send up the sugar excretion of the diabetic by leaps and bounds.

The suprarenal bodies are under the direct control of the sympathetic nervous system. Stimulation of the sympathetic causes an increased output of adrenalin, and this in turn stimulates the hepatic cells to increased sugar production. It naturally follows that in disease of the pancreas affecting the islands of Langerhans, with consequent failure of the inhibitory power of the pancreas, this stimulating power of adrenalin upon the excitability of the sugar-mechanism will be enormously increased. In many cases, owing to the nervous control of the suprarenal bodies, severe nervous excitement may increase the glycosuria, or convert a mild case of diabetes into a severe one.

The *thyroid gland* and pancreas are antagonistic in their influence upon sugar production, the internal secretion of the thyroid gland inhibiting the excitability of the pancreas. Thus, glycosuria can be produced by thyroid feeding, even if the subject be on a mixed diet; on the other hand, it is almost impossible to produce glycosuria in thyroidectomized animals, or in human sufferers from myxedema.

The *parathyroid bodies* are believed to have an influence upon the sugar-forming mechanism antagonistic to that of the thyroid gland; but the rationale of this is not at all clear.

The *hypophysis*, or pituitary body, is believed to have a thyroid-like action upon the pancreas.

Cause of Diabetic Glycosuria

The immediate cause of the overproduction of sugar, and the consequent glycosuria, is the morbid hyperexcitability of the liver. Under normal conditions of liver excitability, the pancreas and suprarenal bodies accurately control sugar production, regulating the amount of sugar produced and set free into the blood stream according to the needs of the moment.

But in diabetes, the liver responds enormously to every stimulation from the suprarenal bodies, especially if the inhibitory action of the pancreas be diminished or removed. Then the slightest stimulus sets up feverish activity in the "sugar-factory," as von Noorden aptly terms the liver; and the blood is flooded with glucose, greatly in excess of the immediate needs of the tissues; and because of this enormous excess of glucose in the blood, glycosuria results.

Because of the hyperexcitability of the liver, the proper relation between strength of stimulus and its resultant effect (in amount of sugar set free) is not maintained; and the degree of disproportion determines the severity of the diabetes.

There is apparently no lack of power on the part of the diabetic's tissues to oxidize sugar; the trouble lies in the overexcitability of the "sugar-factory," with consequent failure of the regulating action of the pancreas.

Most cases, then, if not all, of chronic diabetes are owing to pancreatic insufficiency.

there is every reason to believe that a healthy, functionally active pancreas is at all times able to make felt its inhibitory action upon the liver. But when alimentary, nervous or toxic stimuli, which would not produce glycosuria in a normal individual, always cause fresh outbursts of glycosuria, it is but reasonable to assume that pancreatic insufficiency exists.

[*To be continued.*]

Jonathan Hutchinson

An Appreciation of a Great Man

By JAMES MOORES BALL, M. D., LL. D., St. Louis, Missouri
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A GREAT physician has passed to his rest. The death of Jonathan Hutchinson, which occurred at his house, at Haslemere, on June 23, 1913, removes from English medicine one of its most interesting and most versatile characters—a man who, forming part and parcel of the medical history of the nineteenth century, carried his influence, his studies and his intellectual vigor well into the present period. To few men is it given to follow the profession of medicine for more than sixty years, and to still fewer is it granted that even the latest of these years shall be fruitful.

Jonathan Hutchinson, the offspring of Quaker parents, was born at Selby, Yorkshire, July 23, 1828. At an early age he was apprenticed to a surgeon at York, and at the same time he studied medicine in the York County Hospital and in the York School of Medicine and surgery. In this small school Hutchinson was the only member of some of the classes, and thus he received the benefit of personal instruction. Removing to London in 1849, Hutchinson entered St Bartholomew's Hospital, and in 1850 he took the degrees of M. R. C. S. and L. S. A. Soon thereafter he was appointed surgeon to the Metropolitan Free Hospital, and early in the fifties he was made assistant surgeon to the London Hospital and surgeon to the Royal London Ophthalmic (Moorfields) Hospital. He also became connected with the Blackfriars Hospital for Diseases of the Skin. For many years he served these institutions as well as the Royal Lock Hospital. Nor does this list include all of his hospital appointments. The honors which he received at the hands of the London and British profession are too numerous to be mentioned in this place.

For an ordinary man, the acceptance of so many and such diversified hospital appointments would have resulted in a fatal dissipation of energy, but not so in Hutchinson's case. His wonderful ability is shown in the fact that he gained eminence in every field which he entered—in surgery, in dermatology, in syphilology, and in ophthalmology. He was one of that small group of English surgeons who early began to use the ophthalmoscope in the study of eye diseases. In passing, it may be of interest to note that it was an American, the late Dr. Elkanah Williams of Cincinnati, who first instructed the London surgeons in the use of this valuable instrument.

As an ophthalmologist Hutchinson won world-wide fame by his work on the relationship existing between syphilis and interstitial keratitis. The well-known term "Hutchinson teeth"gives evidence of his acuity as a clinician. The early volumes of the "Ophthamic Hospital Reports" contain many articles from his pen, each one valuable as the work of an accurate and painstaking observer. It is now more than fifty years since Hutchinson made clear the meaning of interstitial keratitis. And who can measure the value of that splendid piece of work? Who can guess the number of persons whose vision has been saved by reason of Hutchinson's writings on interstitial keratitis?

Let us give unto Cæsar the things that are Cæsar's. We of this bustling, hurrying, commercialized, and ultra laboratorial twentieth century are (most of us) too prone to overlook the debt which we owe to men of the Hutchinson type. Too many of us, I fear, look on the aged members of our profession with a feeling akin to pity; when, in fact, they are deserving of the greatest honor. Deprived of the work, the observations, and the discoveries of such men as Jonathan Hutchinson, the active practitioners of today would be as travelers lost in an African forest.

As a recent writer has said (*Lancet*, June 28, 1913), the name of the great English clinician is fixed indelibly in medical nomenclature: "the facial expression of ophthalmoplegia is known as Hutchinson's facies;

the mask-like appearance in tabes dorsalis, as Hutchinson's mask; the unequal size of the pupils in meningeal hemorrhage, as Hutchinson's pupils; the notching of the teeth in hereditary syphilis, as Hutchinson's teeth—while interstitial keratitis, labyrinthine disease, and notched teeth have received the name of Hutchinson's triad." Hutchinson's theory as to the influence of diet in the causation of leprosy is still under discussion.

The practical trend of Hutchinson's mind, and the value which he set on objective teaching, is shown in the fact that as early as in 1868 he originated the museum which is held in connection with the annual meetings of the British Medical Association. The Medical Graduates' College, London, owes its origin chiefly to him.

The writer will end this brief sketch by quoting a few words which occur in an address delivered in the London Hospital, in 1865, in which Hutchinson said: "The true use of benevolence is, to nerve a man onward in the resolute pursuit of knowledge....." It is curious and very instructive to note that, as a rule, they accomplish most who begin at the greatest distance from their object."

Cereus Grandiflorus: Its Active Principles and Their Action Upon the Heart*

By PRIVATDOCENT DR. A. GROEBER, Berlin, Germany
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EDITORIAL NOTE.—Cactus (which is cereus grandiflorus under another name) has been much discussed during recent years. Inasmuch as laboratory workers have been unable to demonstrate the presence of active principles and have failed to elicit the looked-for action upon the lower animals, an effort has been made to discredit the drug entirely. Under such circumstances Dr. Groeber's report excites great interest—perhaps may lead to the reopening of the entire problem. In connection with it read the editorial on page 796.

EVER since, in the year 1864, Rubini,[1] homeopathic physician at Naples, recommended it, cereus grandiflorus, in the form of tincture or fluid extract prepared from the stems, has maintained itself in homeopathic practice as a heart-remedy. The preparations made from cereus grandiflorus, it is claimed, exhibit an action upon the heart such as we recognize in the substances of the digitalis group. So, also, in allopathic practice, this cactacea has been employed here and there, although rather less frequently.[2] Rubini's recommendation is based upon observations of patients treated with cereus grandiflorus.

C. Hartwich[3] makes this statement (1897): ". . . . the drug contains no alkaloid or glucoside; the active constituents are said to be a few resin-acids."

On the contrary, A. Heffter,[4] in his article published a year before that, says: "Finally, I wish to call attention to cereus grandiflorus, in which, besides traces of an alkaloid, there is contained what is probably a glucosidic heart-poison."

Then, finally, mention must here be made of a statement by R. A. Hatcher and H. C. Bailey.[5] These authors do not allow cereus grandiflorus any pharmacologic action whatsoever. In cats and dogs, they did not observe, even after very large doses given by mouth, the slightest action; after the intravenous administration of very large doses, occasionally a weak influence upon the heart.

Verification of these statements seemed desirable. There were at my disposal about 7 kilos of the drug. These were worked up in two separate portions of about 3.5 kilos each.

The drug was comminuted, extracted repeatedly with 94-percent alcohol at 100° C. With this extract [the combined alcoholic tinctures] was incorporated the spirit in which the drug had been transported.

The alcoholic extract [combined tinctures] was concentrated to the consistency of syrup, taken up with water, precipitated with lead acetate, the filtrate freed of lead with ammonium sulphate, the filtrate concentrated, precipitated with tannin. The tannin precipi-

*Translation of a communication from the Pharmacologic Institute of the University of Berlin (Director: Geh. Med.-Rat Prof. Dr. A. Heffter) to the *Therapeutische Monatshefte*, August, 1913, page 581.

tate, warmed, was decomposed with lead oxide, the filtrate evaporated, extracted with chloroform, the chloroform expelled, the residue dissolved in water (1 : 30).

In the proportion of 2.44 Grams per kilo-weight, the solution thus resulting, when injected into the lymph-sacs of a frog, produced the following phenomena:

One-half hour after injecting: Reduction of pulse frequency, from normal 56 per minute, to 24 per minute. Maximal increase of the systole of the heart-ventricle and of the diastole. No systolic ventrical arrest.

Another frog, after 3.33 Grams per kilo-weight, exhibited:

After ten minutes, the systoles stronger, pulse frequency fallen, from normal 45 per minute, to 35 per minute.

After twenty minutes, slight peristalsis of the heart (wrinkling of the ventricle in systole).

After thirty minutes, pulse, 25 per minute; after seventy minutes, pulse, 20 per minute; pulmonary respiration, zero. No systolic ventricle arrest. Next day, recuperation.

In the case of the other portion [of the cactus tincture], the alcoholic extract, after being concentrated, also was taken up with water, precipitated with lead, filtered. The filtrate as also the lead precipitate were worked up.

The lead precipitate was decomposed with hydrogen sulphide, filtered. The filtrate showed a slight acid reaction. Of this [filtrate], a frog of 31 Grams received 2 Cc. into the lymph-sacs.

After two hours and twenty-two minutes, the pulse frequency had fallen, from normal 58 per minute, to 18 per minute; the systoles were very powerful, the diastoles, imperfect. At the same time pulmonary respiration ceased. However, no systolic arrest of the heart occurred.

A second frog, weighing 39 Grams, also received 2 Cc. [of the foregoing filtrate] by injection. Fifty-four minutes after the injection, pulmonary respiration, zero; pulse frequency, 24 per minute against 50 normal. Three hours and forty minutes after injecting, systolic ventricle arrest. Next day, recuperation.

The filtrate obtained after the precipitation with lead acetate was freed of lead by means of hydrogen sulphide, concentrated after adding lime, extracted with chloroform. The chloroformic extract, after removal of the chloroform, yielded a solid residue, which permitted the recognition of crystals in the paste. A portion of this residue (which amounted to 1.16 Grams) was made into a solution, 1 : 100, and utilized for animal-experiments.

A frog of 29 Grams received 0.34 Gram per kilo-weight. Pulse, normal, 42 per minute.

After three-fourths of an hour, indication of cardiac peristalsis. After one and one-fourth hours: pulse, 24 per minute; pulmonary respiration, zero. After two and three-fourths hours, pulse, 28 per minute. After eighteen hours, pulse, 52 per minute; again pulmonary respiration. Recovery.

Another frog, of 36 Grams—pulse, normal, 38 per minute—after the administration of 0.55 Gram per kilo-weight showed:

After fifty minutes: pulse frequency, 30 per minute; pulmonary respiration, zero. After two hours: pulse, 34 per minute; again pulmonary respiration. Recovery.

A third frog, weighing 26 Grams, with 48 normal pulse beats per minute, received 0.77 Gram per kilo-weight.

After one and one-fourth hours, pulse frequency, 33 per minute. Thereafter gradual recovery.

Recrystallization of the second portion [of the foregoing solid residue] did not give a sufficient yield to make a test, owing to the relative amount of impurities. *The general alkaloid reactions were positive.*

The foregoing experiments indicate that cactus [cereus] grandiflorus actually is possessed of an action upon the heart such as belongs to the substances of the digitalis group: In all the frog-experiments, we find reduced frequency of the pulse; strengthening of the systole occurs; in two instances, there was slight cardiac peristalsis, and once systolic ventricle arrest.

This action upon the heart is ascribable to a glucoside (tannin precipitation) present in addition to the alkaloids in cereus grandiflorus.

In view of the minute yield of the active substance, we cannot ascribe to this cactacea an importance as a heart-remedy in the sense of an effective digitalis-therapy for human pathology.

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Some Mistakes of Doctors

Written Especially for General Practitioners

By OSMAN F. WAY, M. D., Claremont, Minnesota

FEW of us like to acknowledge our mistakes. If in our efforts we meet with what seems to be success, we are anxious to tell of it. Thus, reports of successes are widely spread, while our failures are hushed up as quickly as possible. This is wrong. If all made a practice of reporting their failures, it would be the means of doing much more good than the reporting of successes only. For often in the practice of medicine what we consider our success is not due to our efforts in the least, but is the work of nature.

It is with this thought in mind that I wish to call your attention to some of the mistakes that we, as physicians, are making, not alone from a medical standpoint, but also in a business way. And I shall call anything that works ill to either the doctor or his patient a mistake.

It is often said that doctors are poor business men. And this seems to be the rule, although in later years some physicians are awakening to this fact and are now making the business end of their work more pronounced.

These physicians generally specialize in some line. We, therefore, find the specialist demanding much higher fees for his services than the general practitioner does for his. And he generally demands his pay at the time of service, or at least makes some definite arrangement for the payment of it.

Why Turn Your Patients Over to the Specialists?

There is no reason why a specialist should receive twenty-five or fifty dollars for consultation and advice, while the general practitioner gives his consultation and advice for from one to two dollars; or why the general practitioner should treat a patient through a critical case of pneumonia, typhoid fever or any other serious condition, that often lasts from a month to six weeks or more, for from fifty to one hundred dollars, while the surgeon does an operation requiring less than one hour of his time and receives from one hundred to five hundred dollars for it—except that the surgeon or other specialist is more of a business man than is the general practitioner.

The actual skill and ability required of the general practitioner is fully equal to that of any of the specialists, and should be equally paid for.

The general practitioner has himself largely to blame for this difference in wage. He has grown into the habit of referring all his difficult cases to a specialist, until not only he but also his patients think that anything in the least serious must go to a specialist. Consequently, case after case goes to the specialist that might just as well be treated by the home doctor, if he would get to work and do it.

Especially is the surgical specialist in demand at the present time; so much so, in fact, that the principal occupation of some general practitioners seems to be the looking up of cases to refer to the surgeon, altogether too many of whom find indications for an operation on everyone so referred. And, then, some operators are in the habit of paying the home physician a small commission for referring the case.

The patient goes home, the case is reported on the records as a cure, but in a few short months he, or more frequently she, finds her old pains have returned. She goes to the surgeon again, instead of to her family physician, and perhaps finds another operation needed, with practically the same results as before. This continues until at last the surgeon can find no more organs to remove. He then tells her there is nothing that ails her but her nerves and advises her to return to her family doctor, who probably can do as much for her as anyone.

Alas for the patient! Had she received that advice before the first operation she might have been a well woman now. But it is too late; she is a nervous wreck and almost certain to remain so as long as she lives, going from one doctor to another, receiving but little benefit from any. She reads the patent-medicine advertisements, spends much money for the dope, but, still, is an invalid the remainder of her life.

Gentlemen, this picture is not overdrawn. It is happening daily to thousands, and it is a disgrace to the medical profession. In commenting on Dr. J. L. Rothrock's paper on the

subject of "Pain in the Back," *The Journal of the Minnesota State Medical Association* expresses itself as follows:

"If more attention were paid to the nervous life of the individual and more careful investigation were made into the history of previous disorders, the surgeon or gynecologist would hesitate before operating. Undoubtedly, a good many pains in the back are due to pelvic discomfort, and undoubtedly many sincere surgeons and physicians treat the pelvic organs with the idea in mind that it is a form of suggestion. The treatments are harmless and unless overdone probably relieve many pains and aches that women are heir to.

"If gynecological treatment could be carried out with this broad principle in mind, there would be less tinkering and less chronic invalidism following pelvic surgery. It is well recognized that, in the majority of women, the more the attention is fixed upon the pelvic organs, the more likelihood there is for suggestion and for the disease to continue. As a matter of fact, many of these people are relieved from their sufferings by simple methods, wholesome advice, general hygienic improvement, and a distraction of their attention from the supposed cause of pain."

The Real Surgeon vs. the Robber Surgeon

I do not want to say one word against legitimate surgery. A real surgeon stands, in my estimation, the highest of any men. But the one who operates on whoever comes, simply for the one hundred or five hundred dollars he can get, and the general practitioner who sends him the patient for the twenty-five or fifty dollars bestowed on him as commission are as much below the highway-robber as the robber is below the honest tiller of the soil. He not only takes his helpless patient's money, but he dooms her to become a lifelong sufferer from neurasthenia.

Several years ago I read before our Society a paper on "Suggestion in the Treatment of the Sick," in which I recommended very earnestly the use of suggestion as a curative agent. While I do not want to withdraw one word from that advice, I do want to sound a loud warning against the wrong use of suggestion to the sick.

The habit many people have of sympathizing with the sick, telling them how badly they look, how careful they should be, and all such talk, certainly works very strongly against the recovery of the patient. And I am sorry to say, many doctors make the same mistake when talking to their patients or the patient's friends.

Whether it is to offer sympathy, or whether it is to receive praise for a great cure when the patient recovers, makes little difference in the result to the patient. If the physician has expressed the opinion that the patient is in a critical condition, the chances are that he will have a good long job before his patient is well, even though at first very little may have been wrong. And, if the physician had been honest with the patient in the beginning, assuring him that he would soon be all right, the result would have been restoration to health in a very short time.

Of the patients I have had the fortune to receive from outside my regular field of practice, a large percentage are persons who had been led to believe, often by the attending physician, that something was seriously wrong, whereas many a time the only thing necessary to effect a cure was to convince them that there was no serious trouble present.

It is not even necessary to tell a patient by speech that he is in a critical condition. An act, or even a look, often is all that is needed to start the impression in one's mind that something is seriously amiss. And when such an idea is once started, it rapidly grows, until there soon really is something decidedly wrong, and it will require real skill to overcome this delusion.

Do Not Exaggerate the Evil

The knowledge most people have of their own body and its physiological action is very limited, and if one feels a little badly for a day or two it is very easy to make him think that something is seriously wrong. The tendency to exaggerate the bad feelings and to imagine dire evil seems to be natural to most people. And, I am sorry to say, many times the physician, instead of showing the patient that such symptoms denote nothing serious, leaves the impression that it actually is serious; and he begins to worry about it and to think of it until it is a serious matter indeed, at least of his mind if not of his body.

We see this influence very forcibly illustrated by patent-medicine advertising, which I believe to be accountable for more chronic suffering than is any other agency, although through the past few years I fear the surgical craze is becoming a very close competitor.

Every town of any size must now have a hospital, and every case that can by any means be considered surgical must be taken

to the hospital for an operation. So true is this, that a physician scarcely dares to open a boil or remove a sliver unless he has a hospital in which to do it. That this opinion is becoming quite prevalent is evident from the bill passed by the North Dakota legislature a year ago (though vetoed by the governor), requiring the filing of an affidavit stating the pathological condition that would be found, signed by the surgeon and a disinterested physician, before an abdominal operation may be performed in any hospital of the state.

This custom has been a great thing for surgeons, but it is the means of taking much practice and many dollars from the general practitioner of the small towns that have no hospitals. And I believe it would be far better for the patients if a large percentage of the ordinary operations now performed in hospitals were done at home instead, purely on account of the mental influence produced on the patient by having to go to the hospital and see so many there suffering from different forms of disease. A competent surgeon could be called to perform the work, and he be assisted by the home physician and a good nurse, the home physician and the nurse being left to care for the patient after the operation.

The Mistake of Being Ultrascientific

Another mistake of many physicians is in trying to be too scientific. These men spend too much time in studying the cause of disease, its history, the pathology and morbid anatomy, while paying too little attention to the diagnosis, and the treatment and cure. This, perhaps, is very well for the specialist; for it is nice to be able to tell all these things and thereby give the impression that we are so very wise. But for the general practitioner who does not have facilities for accurately determining all the existing conditions, it is much better to spend his time in learning what to do for the condition as seen by himself and told by the patient.

I repeat, too little attention is given by the general regular physician to the treatment of disease. This is evidenced by the number of different methods of treatment that have sprung up all over the land. Also too much reliance is being placed by the general practitioner upon the value of drugs for the cure of disease. True, it is an easy way to treat a patient by writing a prescription to be filled by a druggist and taken by the patient, while nature is trying to produce a cure. But, my brother, if we will supplement our rescriptions with common-sense advice, together with mechanical aids to nature, we shall often be surprised at the quick results of our treatment and the early restoration to health of our patient.

And here I will interpolate that one of our worst mistakes is the giving of opiates and other narcotic remedies for the relief of pain, instead of determining the cause of the pain and giving something to remove the cause. Show me a doctor who is quick to use an opiate to relieve every little pain or to produce rest, in the majority of ailments, and I will show you a doctor who is continually having long-lasting, serious cases to handle. Still, in reading our textbooks and listening to the advice of many of our instructors, we find some opiate advised more often than any other drug, and many doctors seem to follow the advice to the letter.

I am sure much of the treatment practiced even in this enlightened age is a mistake and a damage to the patient. And it is no wonder that people are becoming tired and disgusted with drug treatment and are turning to other methods for relief. And thus we see mechanical and mental methods of cure flourishing on every hand. in spite of the efforts of the regular medical profession to legislate them out of business.

The Better Way to Proceed

Now, after calling attention to so many mistakes in the present practices of medicine, you will naturally expect me to suggest some remedy that shall prevent so much of needless suffering.

First, then, I will say, one great trouble is, our leaders in medicine are almost all specialists. Our literature is nearly all written by specialists. The papers and discussions at our societies are principally by specialists.

If our patient does not almost immediately improve when we are called to attend him, we must have a specialist. If the patient does not ask it, the attending physician will advise it. Our schools and clinics are conducted by specialists.

In fact, we get most of our instruction in the practice of our art from the specialist. And the specialist, whether he be surgeon or otherwise, seldom sees the patient in the beginning of his disease, and his treatment, consequently, is not directed to the prevention nor to the cure of the first stage of the trouble. In fact, his treatment is directed to the results of the disease rather than to the cause of same. As for instance, the cancer removed by the surgeon is not the cause but the result of disease; so, too, the

enlarged thyroid gland, the tuberculous glands, gallstones, appendicitis, cataract, and, in fact, nearly all socalled surgical diseases are not the cause of the patients' illness, but the result. And it is the result of the disease that the surgeon operates upon, and not the cause. True it is, if these conditions are left and not removed they will set up still further disease, which will often result in the death of the patient.

These conditions are equally true of nearly all of our socalled chronic diseases. We are treating effects, and not causes, and the result is that, with all our scientific knowledge, with all our surgical operations, with all our scientific investigations of the history of the pathology of the morbid anatomy, in fact, by the present method of medication, disease is as prevalent as ever and our race is becoming a race of neurasthenic invalids.

Whose Is the Fault?

Now, who is to blame for this condition? Is it the surgeon? Is it the nerve-specialist? Is it any of the different specialists?

No, it is none of these. They are doing their work well and they are having more and more of it to do. All because you and I, who are common, general practitioners, are not doing our work as we should, by being more thorough with our treatment right in the beginning.

Surgeons claim that in seventy percent of their operations for diseases peculiar to women the cause is traceable to indiscretions of the husbands in youth. And this because we, as the young men's physicians, have not done our duty and cured them when they consulted us.

We have read the textbooks of specialists. We have attended their schools, we have witnessed their clinics, we have attended their societies, have read their journals, we have prescribed their serums with so much admiration that we have overlooked the fact that we are learning almost nothing of our art to treat and cure disease in its beginning. And consequently there are more people dying right in our midst today of socalled preventable disease than there were ten years ago. And about all we do to relieve them is to prescribe the elixirs, serums, and numerous mixtures prepared by pharmaceutical chemists and sold to us much as a patent medicine is sold, as a sure cure for all ills. And the recommendations of these pharmaceutical concerns, who have never studied disease of any kind, is all we have to assure us of its uses. As a consequence, notwithstanding all of our specialists' teachings and operations, deaths from socalled preventable diseases is continually on the increase, as the following statistics of our own state, comparing the deaths in 1900 and 1910, show.

In the following, the first number after each disease is the number of deaths in the year 1900, the second is the number in 1910, as reported to our own State Board of Health:

Tuberculosis, 1864 and 2250; cancer, 662 and 1385; scarlet-fever, 80 and 283; pneumonia, 1238 and 1914; typhoid fever, 571 and 683. Which figures, although the population of our state has considerably increased during the time, indicate there is still an increasing death rate.

Government statistics of England show that for the fifteen years from 1879 to 1894, before antitoxin was in use, there were 2541 deaths from diphtheria to each one million inhabitants, while in the next fifteen years with antitoxin treatment there were 3451 deaths from diphtheria to each one million inhabitants.

Dr. Ira S. Wile, in *The Lancet-Clinic*, says: "Since 1880, the death rate from cancer in seventeen states has risen from 361 per ten thousand population to 7.35." And this notwithstanding the early operations now performed on this class of patients; deaths from cancer of the breast, which is now operated upon so early, having risen from 5.7 to 7.3 per ten thousand.

These all prove that the practice of medicine is not the success it should be, and should cause us to pay more attention to the early treatment of all diseases; for in the beginning nearly every disease is easily managed and a cure produced, if properly treated. And little need should be left for the surgeon or any other specialist.

Some Real Successes

The teaching of Dr. Burgess, in his little book, "The New Field," and similar work, in which he says there are but five causes of disease, viz., retention, invasion, innervation, poison, and trauma, has done more to help me take care of my patients, from the beginning of their illness to a restoration to health, than all the other instructions on treatment I have received. This method of treatment, supplemented by common-sense suggestions of encouragement, has given me success in treatment that I could not achieve with the ways of my earlier teaching.

In proof of this assertion, I wish to refer to the last 767 original calls to patients I have

received, to 672 of whom I made but one visit, to 43 I made two visits, to 23 three visits, to 8 four visits, to 3 five visits, to 4 six visits, to 3 seven visits, to 3 eight visits, to 1, ten visits, to 1 eleven visits, to 2 fourteen visits, to 1 seventeen visits, to 1 twenty-one visits, and to 1 thirty visits, making a total of 1092 visits. In this record have been 14 deaths and 72 births, and 9 sent to the hospital.

Of the deaths, 5 were from pneumonia, 3 of whom were infants less than six months old, 1 a man over seventy years of age with chronic bronchitis, and the other an alcoholic inebriate who had the pneumonia several days before I saw him. Four deaths were from cancer, 1 from apoplexy, 1 septic cystitis with enlarged prostate, 1 diabetic coma, and 1 septic endocarditis.

In my practice, in which I have nearly all the work in a territory of 150 square miles with a population of about 2000, I have not had a case of diphtheria for more than three years; although I have seen several throats which a few years ago I should have expected to develop serious cases of the disease. Nor, during that time, have I given a dose of antitoxin. During the same length of time I have had but two runs of typhoid fever, one of them being taken sick away from home and having been sick quite a while before I saw him.

During the past four years I have had in my practice 26 deaths and 115 births. Of the deaths, 8 were infants less than six months old, 12 were from sixty-five to eighty-five years old, and 6 between six months and sixty-five years. Of the 6 between six months and sixty-five years, 2 died from tuberculosis, 1 from an accident, 1 from acute endocarditis, 1 from acute mania, and 1 from septic peritonitis.

Such results as these I believe speak well for a more rational treatment than that usually advocated by our specialists in the early treatment of diseases.

We, the general practitioners, have built up the specialists, not alone by neglecting our duty to cure our patient in the early stages of the disease, but also by sending the patient to the specialist for treatment.

Very few specialists would achieve any great success if it were not for the general practitioners who send him their patients. In the early days, when a patient was referred to a specialist, the latter gave his advice, received his pay, and the patient returned to his home physician to receive the treatment. Or, if the case were a surgical one, the surgeon came to the patient's home, did his work, and left the patient to the care of his home physician. But now when we refer a patient to a specialist we virtually bid him goodby; as he will be taken to the hospital or the sanitarium and there treated without our help. And, if we intimate that we should get some pay out ot the transaction, we get for answer, "Oh, no, that is not ethical." Gentlemen, it may not be ethical, but it is Business.

Should we continue being "ethical" agents for the specialists, or shall we be professional business men for ourselves and our patients?

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[If we understand Doctor Way aright, he has no bone to pick with the surgeons or other specialists. His plea is primarily for the early recognition of disease and its treatment before it has reached the stage of positive damage; he thinks that, if we, as physicians, did our whole duty in preventing disease or arresting it in its incipiency, comparatively few patients would need to be sent to hospitals for operative work of any kind.]

In the main, we agree with Doctor Way. The doctrine he preaches is not a new one; indeed, it is that of the great Belgian master, Burggraeve, who assailed again and again the expectant mode of medication in vogue in his days, and which still is the fashion in many quarters even now—a mode that taught the physician to sit idly by, *waiting*, till the functional disturbance capable of being jugulated was converted into an organic process which would run its course, and, if it did not kill, was bound to leave its permanent scars behind.

"What does the physician too often do?" writes Burggraeve. "*He waits*, and limits himself to general dietetic measures. But at the end of a few hours, perhaps in the interval between the first visit and the second, danger appears; and now it is too late to act: cerebral, thoracic, abdominal or other symptoms have appeared, and the disease has taken the form of a meningitis, a carditis, a pneumonia or a gastroenteritis, and after that it must be cared for through all its stages. With dosimetry, we do not lose a minute. The physician, with his pharmacy 'in his pocket,' observes the patient's condition, acts at once, and cuts short the disease."

"But what shall the doctor do," you ask, "to prevent or arrest disease in its incipiency?" This is what he must do: He needs to keep in mind the fundamental causes, to some of which Doctor Way refers in his citation from the work of Burgess. Further, he needs to

keep in mind some of those general principles of treatment to which we have alluded so often, namely, the importance of attacking bacterial causes, of eliminating the waste, of arresting autotoxemia, whether alimentary or systemic, of equalizing the circulation, of stimulating innervation, and of securing proper nutrition. If we only would keep *these* things in mind—constantly—how much we should increase our own power and how much "special" work we could save.

Use medicines? Of course! We do not take it that Doctor Way objects to the use of drugs, but rather to their improper employment. We ought to use drugs more often—but always with a very distinct idea of the end to be accomplished, never carelessly or as a matter of routine; and we should use every other remedial agency that may promise to contribute to a cure. We "active-principle" men believe in doing *all* that can be done for every patient.

How great are the possibilities of success—how wide is the field—for those who will take their professional work as a serious responsibility.—ED.]

The Office Preparation of Surgical Dressings

Practical Help for the General Practitioner

By CLAUDE P. FORDYCE, A. B., M. D., Grand Island, Nebraska
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THE elimination of a septic environment in the operative field, as taught by the great Pasteur, has made modern surgery possible. Cleanliness—not only apparent, but absolute—is the fundamental principle of wound healing. The additional use of strong antiseptics will aid in certain exigencies, but are not needed if proper technic is observed.

The present tendency among the better class of operators is toward simplicity. Surgeons have found that they need but few wound dressings, and that these must conform to certain standards of the ideal, namely, they must be protective, absorbent, and sterile. Nothing more is required of them.

If a tissue is only injured and without positive cell destruction, a simple protection from external or foreign matter is all that is necessary. If, on the other hand, there is cell destruction—a necrosis of tissue, with the throwing off of dead cellular debris and bacterial-contaminated fluid exudate, then the dressing must be absorbtive as well as protective. Sometimes, in an emergency, the sterility of certain dressings may be in question, and here antiseptics in connection with the dressings is admissable.

Suggestions for Sterilizing Surgical Dressings

Sterilizing of dressings is best done by means of steam under ordinary pressure or of superheated steam at high pressure. For office use, a dressing sterilizer of the Rochester type with double walls and valves is the desirable thing. After filling it full of dressing packets, steam is run through for a half hour, then abundant dry heat is admitted and continued to a thorough drying of the contents. The packets may be retained in the sterilizer, thus utilizing it for storage purposes until the dressing-material is wanted.

Since the office of the average practitioner is not equipped with a steam-pressure sterilizer, many physicians having no sterilizing facilities whatsoever, it is well to recommend an inexpensive but efficient apparatus of the socalled Rochester type. Even a common steam food cooker answers the purpose very well. It is only necessary to be able to turn steam in upon the contents for a given time and then to turn it into other avenues of escape, and by dry heat to remove thoroughly every trace of dampness from the dressings.

A Practical Sterilizer

In places where gas or electricity is available, these, of course, can well be utilized for supplying heat in sterilizing. The most satisfactory office-heater I have seen, and one that I have used for years, is the Primus kerosene pressure heater. In this device, the air is pumped in against kerosene, and, after being generated by means of wood-alcohol, a hot sootless blue flame is produced, much like the Bunsen-burner flame of the laboratories. An additional recommendation is its economy of fuel and ease and quickness of operation.

Mention should be accorded the homely roasting-pan method of sterilizing, to which we all may at some time be driven in an emergency. In this case, the dressings are

simply put into a big roasting-pan with cover and the oven brought to such a heat as barely to scorch the cloth covering of the dressing packet.

One may employ the simplest of apparatus, only the procedure must be thorough. There is no half-way point in the process of perfect sterilization; a condition absolutely necessary to successful aseptic operating—either a thing is sterilized or it is not. Let us not grow weary in attention to minutiæ; in fact, modern surgical success in great measure is owing to painstaking care in the execution of seemingly unimportant details.

Dressings are conveniently cut into the desired shapes and pinned securely but rather loosely in packages of 3, 6, 12 or multiples of the same, then covered with some closely woven material such as muslin.

In carrying out sterilization, follow this general plan:

First: For thirty minutes heat in dry air, to prevent condensation when later the steam is admitted.

Second: Turn on the steam and leave for thirty minutes, or long enough for all dressings to become permeated and sterilized.

Thirdly: Turn off the steam and submit the wet contents to a dry heat until no vestige of dampness remains. Thirty minutes.

The packages, when now wanted for use, may be removed and opened by the surgical assistant without his touching the contents, which can be picked out by the surgically cleansed hands of the operator.

Materials for Surgical Dressings

Many materials have been tried in surgical clinics, for the absorption of discharges from wounds and to act as sponges in the removal of blood. Cotton in the form of gauze or the massed fibers themselves is now in universal use and eminently satisfactory because of the ease of sterilizing them, also for their cheapness, lightness, and general availability.

Ordinary cotton of the kind made into quilts is not suitable for proximal surgical dressings, because the oil is not removed and, hence, it lacks absorptive properties. It is also usually of poor color and purity. However, such cotton is very elastic and makes good padding for splint-work, while its imperviousness allows of its use as a heat and moisture retainer in the place of oiled-silk coverings over absorbent dressings.

When the oil has been extracted and the cotton bleached, the product is in every way suitable for our ideal surgical dressing. As usually cleansed, combed and put up in the packages of different weights, often it is advertised as being aseptic; however, in no nstance should this be taken for granted. One had best be on the safe side and sterilize it himself. Roll it in convenient packages, cover with closely woven muslin and sterilize well.

Why Absorbent Cotton is Used

The absorbent property of cotton constitutes it an ideal substance for mopping out wounds, especially when it is first soaked in normal saline solution, for then it acts like a wick and will not stick to wounds and the operator's fingers as does dry cotton. It should not be employed as a dry dressing on exudative wounds, for the reason that the fibers are sealed by serum or wound discharges and are apt to dry up and be difficult of removal without taking delicate new-formed tissue with it. Woven gauze is the best dressing for this kind of wound, which, though, in turn, may be covered with a cotton pad. Thus, dry cotton is not to be used in direct contact with wet or discharging wounds.

What is called the "combined dressing" is regularly applied in hospital practice, and consists of a pad of cotton enclosed in a gauze covering. It is the dressing for direct application to wounds. Caution must be observed in not making a dressing too large, one capable of absorbing much fluid, which might go unnoticed to a dangerous degree.

By far the most important item in surgical dressing is unbleached absorbent gauze. For dressings, a cloth of very loose texture is preferable, say, one having 26 to 34 threads to the inch. For bandages, a gauze of closer weave, say 40 to 42 threads to the inch, is best, because of its greater firmness.

Gauze Roller Bandages

Gauze roller bandages are conveniently obtainable, cut into proper sizes ready for use and sealed in paper direct from the makers. But when employing gauze for dressings it is economical to buy the material in 25- or 100-yard packages, 1 yard in width, and then improvise the dressings as needed.

Common gauze, or cheese-cloth, as marketed, is not absorbent and frequently is stiffened with starch. This must be removed. Boil the cloth for a half hour in a solution of common washing-soda, 1-4 pound to each 5 yards of cloth, in water sufficient. Rinse in clear water, to remove the soda, which process brings the oil out also. It now is

absorbent. Dry it, cut to the desired shape, fold to the right thickness, and cover and sterilize as above suggested. It is expedient to cut several thicknesses at a time, using large sharp shears.

In folding gauze pieces to secure greater thickness for mops or for dressings, care should be taken to fold in the edges so, that no selvedge can come in contact with the wound, since threads may become disengaged and stick to the surface.

Antiseptic Dressings

The question of employing surgical dressings impregnated with strong antiseptics has taken a decided turn toward simplification. A dressing on an infected wound, as stated, need only be sterile and perhaps wet to insure efficient removal of wound discharge and debris. Instead of resorting to the much used iodoform and bichloride moist gauze, the highest degree of dressing efficiency may be secured by applying sterile absorbent gauze to an infected wound and keeping it moist with some such preparation as Wright's solution; the formula of the latter being as follows:

Sodii citratis.....grs. 2
Sodii chloridi.....grs. 20
Aquæ destillatæ, q. s. ad.....oz. 1

In action, the sodium citrate dissolves the plasma, which is thrown out from the inflamed tissues; and this prevents coagulation. The sodium chloride acts osmotically, that is, by irritation, and the continuous flow of serum washes away wound products.

Other excellent solutions for keeping dressings wet are:

a. Hot sterile physiologic salt solution.

b. Alcohol and saturated solution boric acid, equal parts.

c. Thiersch's solution, composed of

Salicylic acid.....grs. 30
Boric acid.....drs. 2
Sterile water, enough to make.....ozs. 32

Applying Wet Dressings

In applying wet dressings, put next the wound the sterilized gauze, then layers of sterile cotton, then oiled silk or paper through which a small opening is made, to allow the solution to be applied to the point of supersaturation; this to be covered with a piece of the oiled silk and then bandaged.

If one wishes to keep his sterile gauze in sealed jars, proceed as follows: When the gauze is to be sterilized, put in also some screw-cap jars and their caps (Atlas fruit-jars are just the thing), accompanied by a long dressing-forceps, and submit all to the germ-destroying heat. Now transfer the gauze, by means of the sterile forceps, into the jars and seal them.

If a person still adheres to the use of moist bichloride of mercury gauze dressings, these can be conveniently prepared in the following way:

Proceed as directed above for gauze in sealed jars, but before the transfer is made soak the gauze in sterile vessels filled with a 1 : 1000 bichloride of mercury solution until it is well saturated and allow to stand for twenty-four hours, covered. Then pour off the excess and transfer to the sterile jars which are then sealed up airtight.

Of late, there has been a revival of the use of iodine for external wound antisepsis. Iodine gauze may be prepared by soaking the sterilized absorbent gauze in a 1-2 of 1 percent Lugol's solution. This may be sealed in jars while it is yet moist or simply dried and packed in aseptic containers. It is superior to iodoform gauze, in fact, it has been a factor in relegating iodoform to the class of the obsolete. Similarly gauze may be impregnated with antiseptics of the coal-tar series, such as phenol, tricresol, lysol or carbenzol in proper dilution, and then stored in moist condition indefinitely.

Managing Cutaneous Lesions

In injuries involving cutaneous wounds, we must first determine the presence or absence of infection and then apply the proper dressing. In general, we may state that external wounds should be treated thus:

Sterile wounds: by dry dressings.

Infected wounds: by moist dressings, combined with heat to secure the hyperemic effect.

The time has passed when all wounds were regarded as primarily infected and active antiseptics vigorously used, with the object of destroying the microorganisms, but unfortunately causing at the same time tissue necrosis—thereby defeating the object for which treatment was instituted. So, do not attempt to kill the infecting germs with strong antiseptics, but protect the wound and assist nature by applying moist warm dressings, which do not cause necrosis of the tissues, but which do favor an increase in the polymorphonuclear neutrophiles, and which will take care of the invading organisms.

The present tendency is, to exercise more careful judgment concerning the question of infection and then apply mild or nonantiseptic, but surgically clean, dressings. One should

be very careful in a clean wound not to wash away the protecting serum which nature throws out, leaving thus a *locus minoris resistantiæ* for the invasion of microorganisms.

The preparation in the office of surgical dressings is a feasible, economizing procedure and one well worth the efforts required to produce skilful results.

How to Prepare Specimens for Laboratory Examination

By J. FAVIL BIEHN, A. M., M. D., Chicago, Illinois
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THE multitude and intricacy of laboratory procedures of proven value are increasing so rapidly that only the specialist in laboratory work is able to keep abreast of the times. Though often it is of advantage to the clinician to apply some tests to specimens of urine, sputum, pus, and so on, provided he has the time, training and facilities, he must of necessity look more and more to the trained laboratory-man for assistance. I say "assistance" advisedly, because the final verdict must always rest with the clinician.

Even if the laboratory-man, as the result of a positive Wassermann test, declares a case in hand to be one of syphilis, the prognosis and treatment must rest upon the judgment of the clinician and can be based only upon the clinical examination of the patient as to the state of his general health, the extent and seat of the disease, and other factors. By presenting additional facts, either positive or negative, the laboratory may assist in making a diagnosis or in controlling treatment, but not without clinical supervision.

The laboratory is an instrument of more or less precision, to be utilized by the clinician for the elucidation of additional facts, thereby completing the chain of clinical evidence. Both clinician and pathologist have their well-defined fields. Both are necessary—one as much as the other—and the ideal condition, that producing the maximum of results, is to be obtained only by a clear realization, on the part of each, of the necessity of the other, and by their proper cooperation.

The pathologist, any more than the clincian, cannot perform miracles; and, hence, it is essential that he be afforded every possible assistance.

In the first place, therefore, the specimens submitted for examination must be properly prepared. There is nothing so productive of dissatisfaction and misunderstanding, both to the clinician and the pathologist, as an improperly prepared specimen. Further, in order to examine a specimen intelligently, the pathologist should receive a brief history, together with a note as to what, specifically, is desired. This promotes a personal interest in the case, resulting in a closer relationship between the clincian and the pathologist, while it relieves the tedious monotony of the examination of inanimate materials.

It must always be remembered that only repeated negative tests are of value. A single negative result, in the face of positive clinical evidence, is of no, or at most very doubtful, value.

Directions for Preparing Pathologic Specimens

Urine.—Urine testing, although more frequently called for than any other, nevertheless is sadly neglected. There is no disease in which a thorough examination of this, the principal excretory product of the body, will not afford valuable information. The average urine analysis, however, as performed by the hospital-interne, is worse than useless, and gives, in the majority of cases, a false sense of security.

The examination of a single voiding, when this is perfectly fresh, will demonstrate the presence or absence of the following substances of clinical interest: albumin, peptone, albumose, sugars, blood, bile, indican, pus, casts, crystals, and bacteria. While many times these data are of value, they do not give sufficient information, except when some of the pathologic constituents mentioned is present.

The quantitative examination of a 24-hour voiding is to be recommended. Then only can we determine the amount of urea, uric acid, ammonia, and so on, all of which products are highly important; but only if the total excretion can be determined. The

mere percentage of each constituent is of no value, and usually highly misleading.

The sample must be preserved by addition of an antiseptic, else there will occur bacterial decomposition, with destruction of traces of albumin, casts and other cellular elements, this resulting in a change of reaction, with precipitation of crystals, and in that manner masking the original condition and, so, often leading to false conclusions. It is a wanton waste of valuable time and reagents to examine a urine that has decomposed after being voided.

To Prepare a Sample of Urine For Complete Analysis

At least 4 ounces of a thoroughly mixed 24-hour voiding, preserved by the means of 5 grains of thymol, camphor, chloroform or toluol placed in the receptacle in which the urine is collected should be sent to the laboratory, and also, separately, 2 ounces, in another vial, of a single freshly voided sample, also preserved. The amount voided in twenty-four hours, as well as any medicine (or unusual food) taken during the preceding forty-eight to seventy-two hours, should be clearly stated.

If, in order to determine bacterial infection, especially the presence of tubercle bacilli, cultures, bacterins or animal inoculation are required, the sample should be drawn with a sterile catheter, or the first urine should be discarded and the last portion voided directly into a sterile bottle, one that has been boiled for fifteen minutes. No preservative should be added.

Sputum.—The first sputum raised in the morning furnishes the best specimen. This should come from the lungs; and the physician must assure himself that it is not saliva or nasal or pharyngeal mucus. A 2-dram specimen should be sent in a tightly corked, widemouthed bottle. In hot weather, unless cultures or the like are required, 2 drops of 95-percent carbolic acid may be added to each dram as a preservative.

Gastric contents.—From 2 to 4 fluid ounces of the gastric contents, if possible, should be sent in a clean vial. Do not add water, any preservative or other substance. Be sure to state definitely how long the material was in the stomach (one hour is probably the average time), and the exact constituents of the preceding meal should also be stated. Usually, a simple test meal, consisting of bread (or tea) and water, is required.

Blood.—A determination of the number of red and white blood-corpuscles and the percentage of hemoglobin can be made only from fresh blood at the patient's side. However, a vast fund of valuable information, resulting in the diagnosis of many diseases, can be made from a very thin smear on glass slides.

Place a prefectly fresh drop of blood on a clean slide, near one end. Then, with the edge of another slide or a cigarette-paper, quickly spread as thin as possible over the slide. It is best to send several smears—six to ten. They should be dried in the air and then wrapped separately in paper.

For a Widal test, several drops of blood should be allowed to fall from the puncture onto a clean slide, a piece of filter-paper or a clean card.

Feces.—From 1 to 2 ounces of specimen is sufficient, unless parasites are suspected, when 6 or 8 ounces is better. The patient should always be given a test meal, consisting of milk, bread, meat, fat, and vegetables, with a dram of charcoal. Collect that portion of the feces containing the charcoal and place it in a clean well-stoppered bottle. Always mention the kind of food given.

From the examination of such a sample, any marked derangement of the digestive function may be determined. An examination for tubercle bacilli is best made from a sample obtained during the diarrheal stage.

Milk.—At least 2 ounces of the milk is necessary; 4 ounces is better if a complete quantitative examination is required. One or 2 drops of carbolic acid should be added, unless a bacteriologic examination is wanted, in which cases the milk should be sent in a sterile (boiled) bottle.

Pus.—Be sure the purulent material comes from the deep portion of the infected tissues, as that on the surface is contaminated from the surrounding skin or otherwise. Always send in a sterile (boiled) bottle. It is also advisable to send from 4 to 6 thin smears (made with a cotton swab) on glass slides. The smears should be dried in the air and each wrapped separately in paper.

Tissue.—Tissues are best sent in a 10-percent formalin solution or in 95-percent alcohol, at least 10 volumes of solution to 1 volume of specimen. Do not send in gauze or the like, as the tissue will then dry to such an extent that it cannot be examined. Be sure the material comes from the lesion, and is not merely a portion of the surrounding healthy tissue. Always send a piece not less than one-fourth inch square—larger if possible. A brief clinical history practically always is necessary. In the case of tumors, the loca-

tion always must be definitely stated, otherwise the pathologist is liable to be misled.

Blood for the Wassermann test for syphilis, Abderhalden test for pregnancy, Complement-Fixation test for gonorrhea, rabies, or glanders.—These tests require at least 2 Cc. of clear sterile serum, which may be obtained in the following manner:

From the median basilic or other superficial vein, draw off, under aseptic precautions, 5 to 10 Cc. of blood. The skin over the vein should be sterilized with alcohol or chloroform, and these removed by friction with dry sterile gauze. Then apply a tourniquet (a piece of rubber tubing is the best) above the elbow. Have the patient open and close the hand several times, to increase the distention of the vein. Now insert a sterile needle of large caliber into the vein, and allow the blood to flow directly into a sterile container, which should then be immediately corked, to prevent air contamination. The puncture should be painted with tincture of iodine and sealed with colodion.

Set the blood aside, in the ice-box if possible, for eight to twelve hours. Then, with a sterile syringe, remove 2 or more Cc. of the clear serum (which should not be tinged with hemoglobin or contain suspended red blood-corpuscles) place in a sterile vial, cork tightly, and mail at once. If the serum is contaminated or contains hemoglobin, a satisfactory examination cannot be made.

Cerebrospinal, ascitic and other fluids, exudates and transudates.—In a sterile container, send as much of the material as can be collected, up to 4 ounces. It is well to make several thick smears on slides, which should be dried in the air and carefully wrapped. No preservatives should be added.

Water—For a sanitary analysis of water the bacteriologic test, requires4 ounces It should be sent in a recently boiled vial. One quart, in an ordinary bottle, well washed two or three times with the water in question and then completely filled and tightly corked, is required for a sanitary chemic analysis.

For a quantitative mineral analysis, at least one gallon is required.

The source of the water, whether a spring or pond, driven, dug or artesian well, and the distance to outhouses, stables, cesspools, and so on, should always be indicated when sending a sample.

While it is practically impossible to find typhoid bacilli even in an infected water, it is possible, nevertheless, to determine the possibility or the probability of such a water carrying typhoid bacilli or of being infected or contaminated with sewage bacteria.

Material for Autogenous Vaccines

The following directions must be observed in every instance, in order to secure material from which an autogenous vaccine is to be prepared and so as to give assurance that the material contains the infecting organism and is free from contamination.

No preservative should be added. The material, if of sufficient quantity, should always be placed in a sterile vial and sent to the laboratory as soon as possible. A brief clinical history always must accompany the specimen, as well as a definite statement as to the source of the material; otherwise the bacteriologist will not be able to judge as to which of the bacteria present are more likely to be the causative agents. Brief directions follow for the materials usually submitted.

In case of doubt, it is always advisable to write to the bacteriologist, explaining what is desired, the nature of the case, and so on; if possible, sending him at the same time several smears, simply dried on glass slides, in order that he may have a definite idea as to what bacteria are present, and, if it be necessary to send culture-media, that he may send the proper media upon which the particular bacteria concerned in the infection will develop.

Urine.—The external urinary meatus always should be thoroughly cleansed, preferably with sterile water, then the sample drawn directly into a sterile bottle with a sterile catheter,

Feces.—Feces should be discharged immediately into a sterile bottle or a large sterile receptacle, in which they are thoroughly mixed with a sterile spatula or other sterile instrument, then a small portion of the thoroughly mixed material transferred to a sterile bottle. Contamination with urine must absolutely be avoided.

Pus.—If possible, in all cases presenting abscesses, the first pus obtained upon the initial incision of the abscess should be sent. The ideal method of collection is, to paint the skin over the abscess with tincture of iodine then, with a sterile hypodermic syringe, to withdraw from the abscess-cavity the purulent material, which is immediately discharged into a sterile vial. If the abscess has been opened and is discharging or if the material is to be obtained from a discharging sinus, the surrounding skin should be painted with tincture of iodine, the superficial pus removed with sterile gauze, and the sample be obtained

from the deeper portion of the abscess or sinus by means of a sterile hypodermic syringe.

Pus from an infected eye is best obtained from the inner surface of the lower lid, at the inner canthus. Usually there is not a sufficient amount of pus to be obtained from this locality, therefore it is always essential to send to the bacteriologist for proper culture-media that may be inoculated directly with the pus, using a sterile cotton swab.

Sputum.—This requires the greatest care in its collection, as contamination from the mouth, nose, and tonsils must be avoided as far as possible. It is best to have the patient thoroughly brush the teeth and gums with a recently boiled toothbrush, wash out the mouth and gargle, and finally take a few swallows of water. It is needless to say that sterile water should be used, and no antiseptics. The sputum then raised by coughing should be expelled directly into a sterile, widemouth bottle. It is better to collect several samples (two or three). The first sputum in the morning usually is the best.

Nasal secretions are to be placed directly upon suitable culture-media and are obtained by rubbing a sterile swab over the middle turbinate bone.

In ordinary tonsillitis, the cultures are made from a swabbing of the tonsil or, after cleansing the surface of the tonsil with a cotton swab and sterile water, by means of a small sterile swab or fine probe, removing the infectious material from the crypts of the tonsil. Several cultures should always be inoculated.

In pyorrhea, the teeth and gums should be brushed with a sterile brush and sterile water, the mouth thoroughly rinsed with sterile water, then, with a fine probe, capillary pipette or sterile hypodermic syringe, the infectious material should be removed from a number of the pockets and immediately inoculated upon suitable culture-media, which should be perfectly fresh, and which may be obtained from the laboratory.

Blood.—This should be drawn the same as for a Wassermann test, except that 5 Cc. is allowed to flow directly from the needle into 50 Cc. of special broth in one flask, and 10 Cc. of blood allowed to flow into 50 Cc. of special broth in another flask.

Material may be obtained from a pulmonary lesion by means of lung puncture. After sterilizing the skin over the location fixed upon as the site of the lesion, a hypodermic needle is plunged into the lung and one Cc. of sterile normal salt solution is injected. This is then aspirated after a few seconds. (In the meantime, respiratory movements should cease, in order to prevent laceration of the pulmonary tissue.)

As before stated, the preparation of several smears immediately from the material, which should be submitted with the sample, is of the greatest importance, as these will enable the bacteriologist, by means of a direct microscopical examination, to determine exactly which of the pure cultures he obtains upon plating out are actually concerned in the infection. In this way, he is able to determine also the relative proportion of each organism and note whether or not the material as he receives it has undergone any marked change as to the kind, number or proportion of bacteria.

Careful attention to the above details or, in case of doubt communicating with the laboratory for directions, will result in the highest degree of satisfaction both to the clinician and the laboratory-man. It will prevent many misunderstandings and save much time and needless trouble in the collection and submission of improperly prepared samples, that cannot be satisfactorily examined and upon which no definite conclusions can be based.

BLESSED are they who have the gift of making friends, for it is one of God's best gifts. It involves many things, but, above all, the power of going out of one's self and appreciating whatever is noble and loving in another.

—Thomas Hughes

Some Common Things That Baffle Us

By C. ELTON BLANCHARD, M. D., Youngstown, Ohio

EDITORIAL NOTE.—In this interesting little article Dr. Blanchard discourses in an entertaining and helpful way about some of the "every-day" diseases. The readers of CLINICAL MEDICINE *will like this article—and they are promised more along the same lines.*

THERE is a good suggestion in Oliver Wendell Holmes's "Poet at the Breakfast Table," where he advises young doctors to shed their coats of ultrascientific learning and get down to common things, such as curing the bellyache and all that list of human ills so frequently met in every doctor's life. It is to help those who want to follow the advice of Dr. Holmes that I am writing this paper; although I doubt whether it will contain anything new or original. Nevertheless, it may be helpful to some, amusing, perhaps, to others; and the only apology I have for offering these suggestions is the fact that the editor has requested me to do so.

Many men, many good men, of the profession are quite at home at the bedside where a severe case of pneumonia, typhoid fever or some other serious sickness calls for the best that is in them. With the various important diseases they have splendid success. For this work they are fully prepared and equipped with the latest modes and means of treatment. Yet, these same men "fall down" completely in the case of common ailments.

To exemplify. A patient comes into the office complaining of backache. He has tried all the home-remedies he knew of. He has plied his back with mustard-plasters and a lot of other plasters bought at the drug-store. He has swallowed box after box of "liver-pills" and guzzled by the quart teas that kind neighbors guaranteed would cure him; but, for all that, the troublesome symptom persists. And now, at last, he has come to you, the doctor, after trying as long as possible to avoid you, and he wants you to cure him of this "misery in the back."

From his attitude, his stooped position, the putting of hands over a spot somewhere on his posterior aspect, you are directed to the location of his trouble. If you do as is usually done, you say, "Humph, lumbago. Here, take these," and without hesitation hand him a few of your favorite diuretic tablets, perhaps add a few "liver-hustlers," then cheerfully bid him good-day, chucking his dollar into your left-hand pants-pocket, to furnish company to like or lesser companions you have collected to help lubricate your way through life. However, if you have an inquiring mind, you might do well to ask yourself whether you have done all you could or should have done for this patient with "a misery" in his back.

If I had happened along just then, as I chance to happen along now in this journal, and you had asked me, I should have said this: "Pardon me, doctor; but, really it seems to me you have not given this man a fair run for his money." Then we should sit down and have a little talk; and the substance of that talk I want to present now.

A Brotherly Chat on Lumbago

Lumbago, that old and handy name for lumbar neuritis, after all is merely a symptom. First be sure it is a neuritis. Recently I had a case in a young lady stenographer, whose coccyx was pressed upon from sitting long hours in a hard-seated chair, and the reflex pains about the region had sent her to several doctors. They had failed after perfunctory efforts, either because the ailment seemed slight, or because they did not care to examine a young lady's coccyx, which under ordinary circumstances should not be a very unpleasant task. A soft, properly adjusted cushion cured this patient of her lumbago! The cushion—it would be a crime to neglect to mention specifically—was applied between the aforesaid hard chair and the girl's coccyx.

Lumbago is a symptom of acidosis. In some cases it is made worse by motion, other patients feel improved after moving about. The first thing in every instance is, to aid the elimination of waste. Open the bowels thoroughly with the aid of the old-fashioned blue mass and soda, or, if you prefer, use any of the vegetable cholagogs. I have prescribed also with good results castor oil, which seems to have some peculiar beneficial influence upon all forms of neuralgia in some individuals. Wash out the blood with alkaline drinks, adding colchicine, and also morning drinks of lithium citrate or other lithium salt. From the very start, I pay strict attention to intestinal antisepsis and antifermentation treatment. For this purpose, I use

the three combined sulphocarbolates in large doses, and, before meals, effective doses of the antacid powder, sodoxylin.

Sometimes I add to these measures vibration over the lumbar region, also the galvanic current (positive pole to back and negative distant), winding up with a few surges of the sinusoidal, for good measure. I have never been able to see any good from the high-frequency current in this affection, although some recommend it highly, just as some recommend almost anything psychological.

If there is pain so severe that you feel obliged to relieve it, the hyoscine-morphine-cactoid tablets are as good as anything; albeit I have seldom found it necessary to treat these cases symptomatically. Get after the cause, and your symptoms will attend to themselves.

Such local treatment as cupping, counter-irritation, and so on, may do some good, especially mental good, but I doubt whether it helps the condition itself. One old doctor said to me that he made it a rule to use "fly-blows" liberally, and thus made the skin so sore over the painful part that it made the victims forget the original trouble! There may be something in this—who can say?

As to diet and management, it is always good to cut out meat and reduce nitrogen ingestion. I also ask the patients to omit acids and fermentation-favoring foods. A week of this treatment will usually clear up any sort of "backache" that comes along.

About Sciatica and Other Neurites

What has been said of lumbago holds good for most of the neuralgias and sciaticas. There is also a neuritis frequently encountered which, for want of a better name, let us call musculospiral nerve-neuritis.

Your patient complains of pain, loss of function, and nurses the arm with great care. She (it is usually a woman) cannot put her arm to her head to fix her hair or button her dress or tie her strings or whatever it is she has to do about her neck and back. You may trace out the nerve either by the marked tenderness palpation elicits, and frequently nodules may be felt in the nerve-trunk in subjects not too fat. Some patients will complain of numbness or tingling in the fingers, along with the pain in the arm. In diabetic subjects, this may be a very distressing symptom, so that study of the urine is always a good routine measure, to exclude, if possible, diabetes mellitus.

You may find more of the brachial plexus involved, also complicated with a bursitis of the subdeltoid bursa. This is a very common condition, and people have gone along for years without cure. Surgeons have studied the condition and under general anesthesia broken loose the long-standing adhesions, dressing the arm and shoulder with the hand on the top of the head (a cruel posture, as you will know if you ever tried it on yourself for an hour or so), with more or less indifferent success. I own up to having tried it out.

Of late years, however, I am using about the same medicinal, electrical, and vibratory treatment as with lumbago, to which is added vigorous massage manipulation, such as out friends the Osteopaths might employ.

All this class of neurites and neuroses are of toxic origin. The general plan of treatment is, to aid elimination, give antacids, and clean out and keep clean. Dr. L. F. Lewis, of Akron, Ohio, recently said to me, "I can cure most of my patients with saline laxatives, intestinal antiseptics, and sodoxylin," and in a measure I quite agree with him. So will you, if you have worked along this line and given up the old plan of masking symptoms with symptomatic treatment.

A Word About Prostatitis

I must leave vertex headaches for another time, as I wish to add a word about prostatitis, in the space allowed me.

In old men, prostatic troubles are common, some mild, some severe. Prostatitis is common because gonorrhea is common and usually never cured—if, indeed, it is curable at all. Excluding malignant conditions, tuberculosis, calculi, and acute abscesses, we have here the usual and common hypertrophy. Your patient complains of difficulty in starting the urine, of some, or a good deal, rectal tenesmus, often pain in the glans penis, frequent desire to micturate, while some may notice a little blood or pus discharge at times. A few will admit a gonorrheal history; but usually old men like to forget all "wild-oats sowing" and will insist that they never had any venereal trouble, "to their knowledge"!

Often the patient will not consult you until a cold, some food or drink indiscretion or something else, brings on suppression or retention. If he has been a catheter user and has made upon himself fruitless efforts to pass his instrument, you may find such distention and irritation that you have no other course but to aspirate by suprapubic punc-

ture. This is a thing I would do only as a very last resort.

Our surgical friends are quite ready to advise prostatectomy, and insist that it is the only possible hope of saving life, and all that, just as some are equally ready to advise ovariotomy in every case of ovaritis. You will notice I am talking about the common thing, prostatic hypertrophy, and have marked off the list the real surgical conditions.

I have seen so many uncalled-for prostatectomies (and did a few myself in my earlier years of practice, when I felt the call of surgery more than I do now) that doomed the patient either to permanent urinary incontinence or to a "catheter-life," that I must put in my word to call a halt on this sort of practice. It cannot be the surgical fees that induce surgeons to do these operations; it must be impatience with medicinal and non-surgical treatment.

To illustrate: Not long ago a physician called me to examine his father, and there was presented the typical condition I am trying to describe. The man had been a confirmed user of gin and whisky as well as beer. General condition good. At my suggestion, another physician was also called to examine the man. He advised operation at once as the only hope, and suggested calling in our leading surgeon to see the patient.

The surgeon called and confirmed the doctor's diagnosis, and added his prediction that operation was the only chance. The old man, however, entered the game right here and told his son, the doctor, that he would die a natural death, if he was to die, and would not submit to an operation.

I was then recalled, and I continued the nonoperative treatment. The catheter was passed with care and under all possible aseptic precautions. The bladder was washed out daily with hot boric-acid solution, the prostate gland was massaged per rectum, the bowels were kept free, beer and whisky were taken away (although this made the old man complain of great weakness and sleeplessness), the galvanic current was applied, with the positive pole by the rectal electrode, and the negative, distant.

Internally, we gave what I call a sanmazio compound, the formula of which is:

Zea mays, fl. ext.	drs. 2
Triticum, fl. ext.	drs. 2
Saw-palmetto, fl. ext.	drs. 2
Santal-wood, fl. ext.	m. 30
Lithium benzoate	grs. 12
Lithium salicylate	grs. 12
Alcohol	drs. 2
Glycerin	drs. 2
Simple elixir	drs. 3
Water, enough to make	ozs. 6

Directions: Give 1 teaspoonful four times a day, or oftener during the early stage of treatment.

To this add one tablet, at meals, made up as follows:

Ext. cannabis indica	gr. 1-10
Chromium sulphate	grs. 2
Zinc phosphide	gr. 1-10
Ext. nux vomica	gr. 1-8
Cantharides	gr. 1-12
Avenine	gr. 1-200

Locally, I use for instillations, with a deep urethral applicator, an ointment made thus:

Picric acid—30 grains to the ounce.
Bisulphate of quinine—20 grains to the ounce.
Lanolin and glycerin for base.

As is often the case, this man suffered much from vesical tenesmus. There was a constant desire to urinate, even when bladder had been but the moment before emptied as far as possible. The granules of hyoscyamine, gr. 1-250, were used every half hour until the troublesome symptom subsided, then left off. If the tenesmus appeared again the doses were repeated as needed, but within a few days the treatment as outlined began to clear up the condition, and the hyoscyamine was left off entirely.

Under this treatment, our patient, as many others of like type, has left off the use of the catheter, and is taking his meals and beer regularly, and has made as good a recovery—as well as such cases ever do recover. Examination shows the prostate gland reduced to nearly normal size, and there are now, after about two months, no distressing symptoms whatever.

Such is my comment upon a few of the common things that baffle, and which remarks, I trust, may be helpful to others. I have found these means and methods quite satisfactory many times, and feel sure you will also.

Korean Medicine and Surgery

As Practiced by Native Doctors

By NEWTON H. BOWMAN, M. D., Choon Chun, Korea

EDITORIAL NOTE.—In July we printed an interesting paper by Dr. Mary S. Stewart, of Seoul, Korea, upon "The Korean Doctor," and this we are much pleased to be able to supplement by Dr. Bowman's article upon a similar subject. These contributions from foreign lands show us most graphically the great field our medical-missionary brethren in the Orient are tilling.

THE elements of Korean medicine have long been wrapped up in superstitious vagaries, of which much has been written, but amid it all there does exist a real system of medicine and surgery among the native doctors, and it is so recognized by the laity.

The official basis of their practice and of their knowledge of drugs is incorporated in a book called "Pang-uak-hap-pun." This book corresponds to a work on materia medica and therapeutics in combination with a formulary and a repertory, and it is printed in classic Chinese. This book is possessed exclusively by those professing to be doctors, and the laity have no definite knowledge of what it contains, except as the doctors choose to reveal it.

The names of the disease and the remedy are coined into a group of characters, composed of two or more, indicating the exact formula for any given disease known to the native profession. Thus, in the prescription for "colds," betonica officinalis is the chief remedy. This is called "ko'ak-hyang," which, literally translated into English, means "the betonica right-breathing remedy." This particular formula, a representative one, is composed of eleven ingredients, containing from 25 to 75 grains of each drug, making a total of 350 grains. These compound remedies cover a wide range of ailments and are employed according to the indications laid down in the official compilation. Many of the prescriptions have become popular with the laity, but they have no knowledge of what they contain, beyond, perhaps, the principal herb by which name the prescription is known.

The Method of Preparing Drugs

Weeds, barks, roots, and the like are first chopped into small pieces, with a large knife fastened at one end to a board. The quantity of herb is then placed in an iron mortar resembling somewhat a miniature boat, over which is rolled to and fro an iron wheel until the contents are powdered. Thus prepared, the drug is wrapped in a tough brown paper made from the pulp of the bark of the mulberry tree, labeled, and tied up to the low overhanging ceiling until the occasion requires its use. Out of these paper bags of medicine the doctor prepares his prescriptions according to the formulas laid down in the book, which lies open before him. Each drug is carefully weighed out, carefully wrapped in paper, and given to the patient to take home, where the remedy will be made into a decoction. The prescription is sometimes made into a single dose consisting usually of about one quart. Then, again, the prescription may be divided into three or four parts, and one part made into a quart decoction, repeating the dose at equal intervals three or four times a day.

The doctor seldom prepares the decoction himself, except in emergencies or for the purpose of obtaining a solid residue by prolonged boiling and at length evaporating the water. Such a residue is made into a pill of about the size of a medium-sized marble and given just so, anywhere from a few to fifty a day.

Some of the Remedies Employed

Drugs are seldom employed singly, but are usually combined with many others, constituting a remedy-complex for a given disease, as previously mentioned.

Ginseng perhaps heads the list, next comes the mint family, and for a long time Japanese aconite was much employed; but the latter has now been prohibited by the authorities, because many have died from taking the Korean prescription containing it. Coptis tecta, imported into Korea from China, is uniquely employed in the form of a decoction into which those suffering from sore eyes dip their handkerchiefs; the handkerchief coming out a beautiful yellow color, owing, of course, to the presence of berberine. This is the only rational treatment for sore eyes that I have ever known the Korean

doctors to employ, and it is quite popular with the "grandmas." Then there is a certain common roadside weed, belonging to the daisy family, which occupies a prominent place in the native materia medica. Also, no prescription would be thought suitable for taking if it did not contain licoriceroot.

Mercury and arsenic, fused together into a stick, are burned and the fumes arising therefrom are inhaled as a cure for syphilis. This preparation, like many others, is imported into Korea from China. One stick represents a single treatment and is supposed to approximate a cure. The time consumed in taking the treatment is usually about one and a half hours and, in the language of parlance, the patient is "laid out" for two or three days, after which time some (not all) develop salivation in varying degrees.

This treatment has done much harm in Korea, notwithstanding the fact that its use has been ethically confined to the native profession; and, so far as I know, the remedy has never found its way into the hands of the "lost-manhood" brother, there being no such distinctions in the profession. However, I have seen several who had lost their manhood, world without end, as the result of this treatment.

The use of roasted rats, boiled dog-meat, crows, magpies, and the powdered claws and hoofs of animals does not belong to the official class of remedies, neither are they endorsed by the profession proper; however, they, and many others, such as would not add dignity to these pages, are used by the laity as medicine.

The Personnel of the Profession

The profession of medicine in Korea is an exclusive one, because men do not choose it, but the profession chooses the man, and he is trained by a preceptor for a period of three years in the art of preparing medicines and treating the sick. In the meantime the student is taught classic Chinese (the Latin of Oriental languages), in order that he may read the official book of material medica and therapeutics, which is ever to be his basis of medical thought and action.

The doctor is respected by his people and is regarded as a friend in times if sickness. He is above the average in point of intelligence from the standpoint of his own countrymen, notwithstanding the fact that other observers have thought different. While it is true that the sciences of anatomy, physiology, pathology, and bacteriology are to him unknown, yet, what he does not know of these or other subjects he pretends to know, for he is trained in all the arts of self-possession and knows how to inspire his patients with confidence.

The trained native doctor is a materialist and believes in the curative virtues of medicine; however, there are times when he fails to effect a cure, or even to relieve—nay, even more, some of his patients die—but he is not discouraged. He is strictly opposed to the "mudang" (the gobetween of the devil and the sick) and does not endorse the custom of employing charms and incantations for the relief of the sick, because there are no superstitious beliefs taught in his standards of medicine. The domestic medicine, however, is full of magic and superstition, in common with the beliefs of the country.

The General Practice

The visiting of patients in their homes is not so generally practiced, on account of the rigid orthodoxy of queer customs that hedge in the sexes. Nevertheless, there are many conditions that will admit of the doctor's services to women in the homes, although rarely in any obstetrical work, as the "grannies" have monopolized this practice under the "customs act."

The amount of house-to-house practice the doctor does during the day may be determined somewhat by the degree of his soberness, as it is the custom to give the doctor a drink of "sool" (the national beverage) before he departs, especially if the patron plans not to pay—which is most generally the case.

The doctor, under the moral law of his country, is required to answer the call of the sick, whether it be night or day, summer or winter, pay or no pay, and if he refuses without any good reason, disgrace is his reward.

The income derived from the general practice may be safely estimated at about 50 to 100 dollars for the year. There may be some who receive as much as $200 or even more, but it is the exception. This income, however, enables the doctor to live in keeping with his needs and possibly better than the average citizen among whom he ministers.

The most lucrative side of the doctor's income is derived from the sale of medicine rather than from the professional services; therefore the Korean drugshop is nearly always owned and conducted by the doctor.

Under this head many atrocities have been perpetrated on the human race the world over,

but I believe Korean native surgery takes first place in point of crudeness. All Korean doctors do not make pretences at surgery, while, on the other hand, all those who pretend to do surgery also practice general medicine.

The instruments in use are few and simple. There are four kinds, called chims, and they are: (1) a small steel needle, (2) a large silver needle, (3) a steel knife, and (4) an iron rod.

The small steel needle is about two inches long, resembling a darning needle, but has no eye. It is used to make small pepper-box perforations of the skin over painful regions, such as swollen limbs, joints or other parts of the body. The needle is held between the thumb and forefinger and, with a telegraphic movement of the wrist, showers the skin with innumerable small punctures from which blood oozes. This method is employed frequently over the stomach for severe pain, and I have seen some who has punctured areas as large as a dinner-plate as a result of this treatment.

The large silver needle is about the size of a knitting needle and is six inches long. It is sharp at one end, and slightly larger and threaded with screw-like corrugations at the other. This instrument is used to pierce swollen limbs or joints, and it is sometimes inserted over the pit of the stomach from a fraction to the depth of one inch. The surgeon polishes it in his hair! With a dexterous movement he plunges the needle into the part affected, making at the same time a rotary movement of the instrument between the thumb and forefinger, which facilitates its entrance into the tissues; then the needle is released and the operator thumps the free end with his finger. Then the needle is withdrawn, to be reinserted at another point in the same manner.

The steel knife has every appearance of a crudely constructed dagger and is about four inches long, equally divided into handle and blade. This instrument is employed only to open abscesses deeply situated, and when there is little or no "pointing."

The iron rod, twelve inches long, about the size of a lead-pencil and blunt at both ends, is the only instrument employed hot. This is the notorious "fire-chim" of Korea that has offended every humane society on earth. The instrument is heated red-hot and made to burn its way into the tissues.

Amputations of the neck of the womb are frequently done for women whose womb is protruding from the vagina, as in "falling of the womb." The method employed is as follows: The neck is tightly ligated, close up to the body of the womb, with a strong cotton cord, which serves the double purpose of choking off the blood supply and of making downward traction; then the hot iron is applied thoroughly over that portion ligated off by the cord. The cord is left intact until it comes away with the slough, which in effect completes the operation. Strange to say, many victims live through these ordeals, and are alive today to tell the tale.

This same instrument is used also to open abscesses that are not deeply situated and definitely "pointing." Other operations are being done with this instrument, by the laity and socalled Korean doctors, that have been erroneously ascribed to the regular native profession. The burning of children on the head for fits and on the back for worms is a procedure that belongs to domestic medicine, which is not within the province of this paper to discuss.

Anesthetics, either general or local, are not employed; neither is there any attempt to relieve pain or mechanical injuries, such as cuts, broken bones and the like. However, since the introduction of the hypodermic syringe and needle into Korea by the medical missionaries, some of the native Korean doctors have been observant enough to note its advantages over their crude needle and have secured a few discarded antitoxin syringes, with which they are injecting a decoction of opium for the relief of pain. Needless to say, many of their patients have taken refuge in the last long sleep.

The high mortality from disease in Korea is not altogether attributable to the crude and barbarous methods employed by native doctors, but is the result more especially of the bad sanitary conditions under which the people live and of the curative methods employed in domestic medicine.

The International Medical Congress

The Story of the Recent London Meeting

By OUR LONDON CORRESPONDENT

THE opening of the International Medical Congress in London on August 6 by Prince Arthur of Connaught (on behalf of the King), who was supported by the Secretary for Foreign Affairs, Sir Edward Grey, was a brilliant ceremony. As the Albert Hall was practically full, even to the topmost balcony, there must have been present nearly 10,000 interested people. (It was announced afterward that 7400 members had registered, while large additions were made on succeeding days.) The governments of twenty-five countries sent official representatives, and uniforms and academic robes gave a brilliant color-tone to the assemblage.

Sir Thomas Barlow describing, in his presidential address, medicine as "an affair of world-politics" was a most felicitous expression and will linger in memory. He paid the homage of the profession to Pasteur, Lister, and Koch, as also to Huxley and Virchow, those great masters of the past generation who were the lights of the Congress of 1881, and in that connection reviewed the advances that have flown from the pioneer work of these men. He expressed encouragement for the future, and welcomed the guests from foreign lands.

A notable event was the dinner given by the British Government, on the night preceding the opening of the Congress, to some 600 of the more eminent members of the profession, with Lord Morley presiding. This event marked an epoch in State recognition of the medical parliament.

The Addresses

The address in medicine by Professor Chauffard, of Paris, delivered on August 6, was on the methods, evolution, and present limitations of medical prognosis. He reviewed the development of the methods of diagnosis, of which prognosis is the corollary and practical application.

Professor Harvey Cushing's address in surgery was a vigorous justification of the essential need of animal-experimentation, not only for human beings, but for the animal world itself. He also urged a revolution in the system of medical education on the well-known lines laid down by Mr. Abraham Flexner, by the dissociation of teaching from private practice, and the furtherance of research-work as an integral part of university education on the hospital-unit plan, of which Sir William Osler is the champion. British medical opinion, however, does not entirely indorse this point of view; the main objection being, that the intimate association of the teacher with practice, coupled with the practical part played by the students as dressers and clinical clerks, in which they have personal charge of cases, conduce, as Mr. Flexner admitted in his report on medical education in Europe, to the production of an exceptionally well-trained type of general practitioners, which would be jeoparded by any alteration of the system in vogue at present.

Prof. Ehrlich's address in pathology, which was editorially described in *The Times* (London) as a model of authoritative yet modest exposition, was in the main devoted to an exposition of chemotherapy, and especially to the use of salvarsan and its effects and limitations. Professor Ehrlich was very enthusiastic in maintaining his ideal, and answered criticisms and explained details, and prophesied most confidently great conquests in the near future from the application of the principles of chemotherapy.

Professor Bateson, of Cambridge University, in his address on heredity, summarized the Mendelian principle, discussed conditions showing dominant descent and recessive conditions, the descent of the sex-limited type, inhibiting factors, the inheritance of normal characteristics, the descent of insanity and other conditions, and the relation of eugenics to legislation.

Professor Bateson made one statement that is especially worthy of attention. He pointed out that the American student of genetics had clearly shown at least one marked recessive condition in feebleminded-ness; and, in this connection, he asserted that the Mental Deficiency Bill was a wise beginning of reform. But, he added warningly, one could not hear, without disquietude, of the violent measures, with similar aims, that were being adopted in certain parts of the United States. It was one thing to check the reproduction of hopeless defectives; it was different, however, to recognize a wholesale tampering with the structure of a population,

such as would follow if any marriage not regarded by officials as eugenic were liable to be prohibited, as was actually proposed in Pennsylvania and New Jersey. Nothing yet ascertained by genetic science justified such a course, and we might well wonder how genius and the arts would fare in a community constructed according to these unscientific notions.

The address in public health, by the Right Honorable John Burns, M. P., president of the Local Government Board, dealing with the relationship between medicine and public health, was delivered on August 12. The speaker gave a vivid description of the past saving of life, owing to sanitation; he discussed the doctrine that dirt makes disease; described the stages in the registration of disease; and considered the scientific period of disease prevention, and touched upon Pasteur, Lister, Semmelweis, and Koch, in enumerating the factors in the reduction of tuberculosis and the evils of urbanization, with a partial remedy therefor. He dealt with the application of science in medical practice, the ever increasing institutional treatment of disease, the role of the nurse, and finally the interdependence of nations in the matter of public health. It was a truly remarkable address.

The Work of the Different Sections

It would obviously be quite futile to attempt anything like a summary of the proceedings of the Sections. A most concise abstract of even any one section would take a lot more space than this entire letter can be accorded. I shall, therefore, refer very cursorily only to a few outstanding topics that were of supreme importance in themselves or at least attracted much attention.

It really looked as though the long-prevalent "conspiracy of silence" with respect to the venereal peril was at last to be overcome. The way had already been paved by a brilliant communication published in *The Lancet* (London), before the date of the meeting, in which Sir Malcolm Morris called upon the Government to appoint a royal commission that should investigate the prevalence of these antisocial diseases and to suggest a line of defense against their progress. This was followed up by a letter in *The Morning Post* of July 22, signed, not alone by Sir Malcolm Morris, but by 37 other medical men and women ranking among the leaders of British medicine, endorsing the request. In addition, the British Medical Association at its meeting at Brighton, adopted a resolution also approving the suggestion. So it was that when, on August 9, this subject came up before the joint sessions of the Sections on Dermatology and Syphilography and of Forensic Medicine, the ground had been fairly cleared for the resolution that was passes by the sections named and subsequently sent up to the whole congress; this resolution reading as follows:

"That, sensible of the ravages wrought by syphilis in the health of the community, and deploring the inadequacy of existing facilities for checking its dissemination, the International Medical Congress calls upon the governments of all countries here represented:

"1. To institute a system of confidential notification of the disease to a sanitary authority, wherever such notification does not already obtain.

"2. To make systematic provision for the diagnosis and treatment of all cases of syphilis not otherwise provided for."

It is satisfactory to note that an announcement was subsequently made in the House of Commons that the British Government intends to institute an inquiry into the disease. Which fact, as one of the German delegates remarked, should be a splendid example to other governments.

The subject of animal-experimentation, which was so forcibly dealt with by Dr. Harvey Cushing, subsequently was taken up in the section on Physiology and in other Sections, and the following resolution was passed:

"That this Congress records its convictions that experiments on living animals have proved of the utmost service to medicine in the past, and are indispensable to its future progress. That, accordingly, while strongly deprecating the infliction of unnecessary pain, it is of opinion, alike in the interests of man and of animals, that it is not desirable to restrict competent persons in the performance of such experiments."

A Discussion of Arsenobenzol

At a combined session of the Sections on Naval and Military Hygiene and of Dermatology and Syphilography, the subject of salvarsan naturally attracted considerable attention. The discussion was opened by Ehrlich himself, who considered the drug from a chemical standpoint, its limitations, dangers, and so on. It was continued by Gibbard, Wassermann, Hallopeau, Malcolm Morris, Leredde, McDonagh, Saalfeld, Basch, Berry, Levy-Binz, Hata (Ehrlich's collaborator), Blaschko, Fordyce, Schreiber, McIntosh, Ullmann, Yadassohn, and Harrison.

The discussion showed that in most points there was a general agreement and that, if too much had been expected of salvarsan, at least it was of great service and a valuable adjunct in the treatment of syphilis. It is worthy of notice, in this connection, that on August 5, the day before the Congress opened, an inquest was held upon the body of an American who died, at his apartments in Eaton Square, after an injection of salvarsan—6 grains of the drug. Death, in the medical opinion, resulted from heart failure consequent upon arsenical poisoning.

An interesting discussion on the treatment of diabetes took place in the Section of Medcine, under Sir William Osler, when Dr. Dock, of St. Louis, called attention to the importance of considering the causation of the glycosuria, inasmuch as diabetes might be caused in at least seven different ways. Prof. von Noorden, in an able paper, insisted upon the need of individualizing. He advocated giving two or three ounces of whisky daily in severe cases. To this suggestion Prof. Saundby, of Birmingham, took exception.

Some Important Surgical Papers

Tumors of the brain gave rise to the most important discussion in the Section on surgery, following a paper on the indications for operation, read by Sir David Ferrier. A number of distinguished men took part, including Bruns, Cushing, von Eiselsberg, Tooth, Bramwell, Krause, Horsley, and McEwan. To operate, after an accurate diagnosis has been established, appeared to be the sense of those present; although the difficulties of such diagnosis were insisted upon, Bramwell expressing the opinion that surgeons could do little for brain-tumors.

An interesting discussion took place, in the Section on Orthopedics, on Albee's method of bone transplantation in Pott's disease of the spine. A piece of bone from the tibia is inserted into a furrow made in the spines of the diseased vertebræ, thus acting as a splint. Dr. Albee had performed the operation at the National Orthopedic Hospital in the morning. Dr. J. B. Murphy also read a communication on the subject.

Value of Cardiac Remedies

In the Section on Therapeutics, the comparative value of cardiac remedies occupied a prominent place. Gottlieb, of Heidelberg, referred to recent pharmacological observations on digitalis, while Janeway, of New York said that from the clinical viewpoint, the indications for digitalis-therapy had become increasingly precise, through the exact study of the heart rhythm. Strophanthin, intravenously, had given remarkable results. However, for the most part the galenicals received attention, rather than alkaloids and other active principles.

The Pathology of Shock

In the Section on Pathology, an interesting discussion was that on the pathology of shock, which was initiated by Prof. Yandell Henderson, of Yale. There were many forms of shock, he said, and opposing observations by independent investigators might be equally true.

Henderson regarded the structural changes, as found by Crile in the cortical ganglioncells, not as the fundamental element of shock, as did Crile, but as the result of the involved anemia. He considered acapnia a most important element in some forms. His views and Crile's however, were not mutually exclusive.

The speaker referred to three forms of sudden death usually spoken of as owing to shock, namely, death from electricity, anaphylactic shock, and death from grief or fright; and he claimed that the theory of vagus inhibition as the cause was inadequate. It did not involve an abolition of the normal peripheral vascular resistance. It was not a vasomotor failure. Its fundamental conditions were not nervous, but physical. In the discussion that ensued, Dr. Crile insisted upon his kinetic theory of shock. The subject of anaphylaxis also came in for a good deal of discussion, as also did the "anoci-association," in the Section on Anasthetics.

New Work in Bacteriology and Bacteriotherapy

An interesting paper presented in the Section on Bacteriology, was that of Dr. Hofer, of Vienna, who described an organism that he considered to be the cause of ozena, and detailed his reasons for thinking so. After a lively discussion, the general sense of the meeting seemed to be that he had made good his claims.

Dr. Broughton Alcock, of the Pasteur Institute, explained his method of treating infective conditions with injections of living bacilli up to 300 millions, and even more—(streptoccoci, staphylococci, gonococci, etc.) which he had practiced without observing any ill effect. Warnings were entered, however, by Loeffler, Thiele, and several others.

Sir James Crichton Brown, in his presidential address to the Section on Psychiatry, dwelt upon the increase in lunacy and urged

the need of investigation and better methods of hospital treatment. The psychiatric clinic of Baltimore was described by Prof. Adolf Meyer. The Maudsley Hospital, to be erected in London out of Dr. Maudsley's donation of $150,000 to the London County Council for the purpose, it to be based on the American model.

Freud's theory of psychoanalysis, as was to be expected, aroused considerable discussion, Prof. Janet, of Paris, criticizing it with considerable force and acuteness.

Forensic Medicine and Medical History

In the Section on Forensic Medicine, a most important discussion centered about the subject of malingering, which has sprung suddenly into great prominence in England under the Insurance Act. Sir John Collie was the principal reporter, and he laid great stress on the complexity of the mental attitude of workmen with regard to returning to work, as leading to a mode of malingering which, while undoubtedly it was a fictitious stimulation or exaggeration of disease, was nevertheless not a distinctly conscious imposture.

The Section on the History of Medicine was a new one, and it amply justified its existence in its first proceedings. The president, through whose energy it was organized, mainly, was Dr. Norman Moore, a medical scholar of the most distinguished type. Many papers of the utmost interest were read.

The "historical method" is now so firmly established in all other branches of knowledge, as conducing to the elucidation of truth, that its importance as a guide in further investigation in medicine cannot be gainsaid. Indeed, in practice, it is largely resorted to every day, for almost universally the first thing a medical writer does in propounding some new view or method of procedure in any medical subject is, to review briefly the history of the subject so far as it is on record and easily accessible. These qualifications for the most part, however, exist in relation only to very recent history; but it is the function of a systematic study of the history of medicine to carry such researches back into far more removed epochs, whereby much information will be gained from the experience of the past.

A notable instance of this kind occurred in Mr. Nelson Hardy's paper on the history of epidemic mental disorders, wherein he referred to the most celebrated epidemics of former time—the dancing mania among others—and classed modern militant suffragettism among them.

Space does not permit me to do more than refer to the Medical Museum of the Congress in the Imperial College of Science, South Kensington, in which nearly every Section of the Congress was represented; and also to the unique Museum of the History of Medicine, in Wigmore Street, organized by Mr. H. S. Wellcome. There was also an exhibition of surgical appliances, drugs, food, mineral waters, and so on, which was of a distinctly scientific character, and, though naturally prevailingly British, still to some extent international in its representation.

An International Association of Orthopedic Surgeons was instituted during the Congress, the Committee being as follows: Great Britain, Sir Robert Jones; Holland, Prof. Mark Jansen; Italy, Prof Putti; France, Prof. Kirinesson; United States, Prof. Lovett; Germany, Prof. Vulpius; Hungary, Prof. Dollinger; Canada, Prof. Clarence Starr; Russia, Prof. Turner; Austria, Prof. Spitzy (secretary).

The Tutmonda Esperanta Kuracista Asocio (Universal Esperanto Medical Association) held two meetings in the Royal School of Mines, at which several papers on highly technical subjects—such as the alkalinity of the blood, the sounding of the duodenum, and so on—were read and discussed in Esperanto by medical men of several nationalities.

Two interesting tributes were paid during the Congress. Professor Blanchard, of Paris, presented a gold medallion to Sir Patrick Manson, in the Section on Tropical Medicine, for his great discovery of the cause of kala-azar. Also the French members of the Congress, through Dr. Lucas-Championniere, placed a laurel wreath on the bust of the late Lord Lister, made for the Royal College of Surgeons by Sir Thomas Brock, R. A.

The Royal College of Surgeons also took the opportunity of conferring the Fellowship of the College on fifteen distinguished foreign and colonial surgeons, among them being Dr. G. W. Crile of Cleveland, Dr. Harvey Cushing of Baltimore, Dr. W. J. Mayo of Rochester, Minn., and Dr. J. B. Murphy of Chicago.

At the closing meeting of the Congress on August 12, the award of the Congress prizes was announced as follows: The Moscow prize, to Prof. Charles Richet, of Paris, for his work on anaphylaxis. The Paris prize, to Prof. A. V. Wassermann, of Berlin, for his work on experimental therapy and on im-

munity. The Hungary prize, to Sir Almroth Wright, of London, for his work on anaphylaxis.

Munich, 1917, was appointed as the place and time of the next International Medical Congress.

Reminiscences of a Country Doctor

By A. T. CUZNER, M. D., Gilmore, Florida

EDITORIAL NOTE.—Dr. Cuzner is one of the old war horses. He has been fighting with us for a better therapy for a good many years—and he is fighting yet. Long may he be with us to help carry on the battle.

SOME fifty years ago I took up the study of medicine. In this undertaking I was especially favored in having as personal friends, and as tutors, "giants of those days" —Drs. J. Marion Sims, Lewis E. Sayre, Louis Bauer, and J. H. Douglas. Each of these imparted his quota of medical knowledge, and aided me in training for my future life-work.

One-half of my medical experience has been acquired in the South. Here I found certain diseases—common enough in the Northern states—conspicious by their absence. For a number of years I never had to deal with a case of rheumatism or diphtheria.

My first introduction to diseases peculiar to the South was during the epidemic of yellow-fever in Jacksonville, in the year 1888. This disease and typhoid fever are both eminently filth-diseases. The former made its appearance on this continent soon after the conquest and settlement of the West Indies and Mexico, and owed its existence in those countries, I believe, to the introduction of negro slavery. That yellow-fever is a filth-disease, is proven by experience, for we had yellow-fever endemic in all the southern cities where the sanitation was bad and filth prevailed, while since Havana, Panama, and New Orleans have improved their sanitation and cleanliness, this disease has become almost unknown there.

Experience With Yellow-Fever

My own experience was as follows: The first week that yellow-fever was declared epidemic in Jacksonville we were engaged in the cleaning up of the slums of the city. Afterwards I became a member of the staff of the Medical Bureau of Relief. At the close of our service, on a careful analysis of the cases reported and of the deaths that occured, we found these thickly settled slums had the least number of cases and the smallest death rate. My own success with this disease was far above that of the other doctors of the Bureau. They attributed it to my practice of carrying with me a case of medicines and administering the remedies personally. These medicines were not of great bulk, being mainly alkaloids or other active principles. Having established my diagnosis I initiated my treatment with a powder of calomel and podophyllin. Then I wrote a prescription for tincture aconite, acetate of potassium and spirit of nitrous ether; ordering the patient to drink plenty of hot orange-peel tea as I have found this to be an excellent diaphoretic. This practice of carrying and administering my medicines grew on me as time passed.

About the year 1895 my attention was directed by *The Medical World* to a medical publication named THE ALKALOIDAL CLINIC and immediately subscribed for this journal, with the result that I purchased works on alkaloidal medication and supplying myself with a case of granules.

From that time to the present I have mainly depended upon the alkaloid in my treatment of the sick.

Advantages of Active-Principle Therapy

There are good reasons for this practice of mine, as it is that of the many thousands of followers of dosimetry as understood in this country.

In the first place, if we take any medicinal plant and obtain an extract from it, we have a complex mixture, the different ingredients of which it is composed varying in amount, strength, and effect; while in certain instances some of the different principles directly counteract each other.

Secondly, the alkaloids having a definite strength and action, we can so apply our medicine as to obtain definite results. Our diagnosis may be inaccurate, of course, and then, naturally, a wrong remedy may be em-

ployed with consequent insatisfactory results.

Just here I would pause to state that it is not alkaloids alone that are used in "alkaloidal" medication; there are other remedies. Among the latter are found resins, glucosides, concentrations, acids, salts of various metals, extracts, and various chemical combinations and other substances which cannot be classed with those named, such as pepsin, iodoform, nitroglycerin (glonoin) monobromated camphor, and others. These, like the alkaloids, have a definite action that we can always count upon to meet certain well-defined symptoms in disease.

In practice, we need not wait, in our treatment of morbid conditions, for an exact diagnosis; we can administer at once such medicines as clinincal experience has proved best suited to meet present known morbid phenomena. This may be called the symptomatic treatment, and may be continued throughout the course of the disease. The dominant treatment is that which is calculated to either neutralize or to do away with the cause, or causes, of the diseased condition, and the restoration to the normal.

The Importance of Excretion

In the operations of nature, throughout organic life, there is exhibited a uniformity of design which, if understood, will be the means of unraveling many—if not most—of our pathological and agricultural problems. From the lowest forms of life revealed by the microscope to highly developed man—"made a little lower than the angels"—we find that the processes of absorption, secretion, and excretion are common to all. All organic bodies are alive throughout their ultimate cells and electrons. But do not remain so, else we should live on forever. For they perform all the operations of life by virtue of their own inherent, self-contained vitality, and, in thus doing, these cells and electrons loose, in the performance of their particular function, their vitality and die.

In consequence of this death of the cells, there is a continuous accumulation of dead and poisonous material in the organism, and this must be removed. This poisonous material, if not removed, becomes a nidus for the lodgment and development of the germ of disease. Hence, the supreme importance of attention to elimination.

I believe the time has come when the subject of the excretions of the human body will be recognized as second to none in importance. I wrote an agricultural article the other day and sent it to the U. S. Agricultural Department. One of the points I made was this; Plants, as a rule, are distinguished from animals by the fact that they are anchored to the spot for life, where they begin their existence. Excreting, both from leaves and roots, the worn-out and effete material of their structures, the result of their life-work, they very soon have their roots surrounded by decomposing and organic material.

Now, each plant excretes material that is mainly poisonous to its own structure. Hence, we find that successive crops of wheat (or of any other plant) becomes less in amount. The remedy for this, I stated in that article, was a succession of crops of different kinds of plants; giving as a reason that, as chemical analysis showed no loss of plant food, it must be that the wheat-ground having been poisoned by the excretions of the previous wheat-crop; therefore time must be allowed for the decomposition of this poison in the soil, or else some other plant not affected by it must be substituted for the former. Moses understood this when he decreed that "the land shall rest every seventh year."

Now, in the human body, every cell, as it dies, must have the materials of which it is composed removed, or they will act as an irritant to adjacent living cells; hence, we have an excitation set up which we call inflammation, this resulting in an increased flow of blood to that part.

I believe this is the solution of the problem of how serum therapy effects a cure in many diseases. The body-tissues, after a time, gradually tolerate the presence of the germ or its toxins. Hence, the morbid process they were formerly enabled to set up and to continue they are now powerless to effect.

The following, from the pen of Dr. Abbott, I believe to be Simon-pure medical gospel:

"At least two-thirds of all sickness is due to decomposition or fermentation of food-waste in the alimentary canal, as a result of which toxic bodies are formed that set up one disease-condition or another, either locally, by irritating the mucosa, or remotely, through being absorbed into the blood stream and then acting as direct poisons to every body tissue."

WHAT OTHERS ARE DOING

PHENOLPHTHALEIN MAY SIMULATE BLOOD IN FECES

Phenolphthalein, when taken internally, may color the stools in a manner to simulate blood, and a writer in the *Deutsche Medizinische Wochenschrift* warns physicians against this possible deception. Before diagnosing blood, they should first make sure of the absence of chemical discoloration, by questioning or testing. To an ethereal extract of the feces add a few drops of potassa or soda solution; if the ether turns red, add a little acetic acid. Disappearance of the red color indicates phenolphthalein.

This reminds us of the experience of one of our friends, who was called in haste to see a a little patient whose "mouth was all bloody," and who had been taking a phenolphthalein laxative (thalosen). A little inquiry revealed the fact that an alkaline tablet was given before the youngster had finished chewing up the thalosen. Hence, a bad case of useless fright. Remember, when giving phenolphthalein, that in the presence of alkalis it gives a bright-red color.

DISCUSSION OF ALL THE MEDICINAL GLUCOSIDES

Attention is called to a serial article in the *Pharmazeutische Zentralhalle* (beginning in No. 20—May 15, 1913) upon the medicinal glucosides. The author, George Cohn, takes up all the glucosides at present finding employment in medicine, discussing for each the chemical aspects as well as the therapeutic properties. The article is very complete and worth filing by everyone interested in the active principles (more on the chemical side, though), but, unfortunately, too lengthy to admit of translation for these columns.

GLONOIN IN SEASICKNESS

O. Burwinkel recommends (*Wien. Med. Klinik*, 1912, No. 29) the use of glonoin for seasickness, on the theory that this ailment results from spasm of the vessels and consequent anemia of the central nervous system. Burwinkel tried this remedy on himself while on a voyage, and found that the symptoms were quickly alleviated. This relief was only temporary, it is true, and the dose had to be repeated at frequent intervals; still, this can be done with perfect safety.

In this connection it is worth while to call attention to the use of cactoid in the treatment or the prevention of seasickness, as advocated by Dr. S. A. Davis (of the Lambert & Holt Steamship lines), in his communication printed in CLINICAL MEDICINE, page 691 of the August issue. In the exceedingly severe cases he succeeds with hyoscine, morphine and cactoid.

VASOHYPERTENSIN: THE PRINCIPLE OF THE HYPOPHYSIS

Vasohypertensin is the name bestowed by L. Popillski upon the vasoconstrictive principle which he has succeeded in isolating (*Berl. Klin. Woch.*, 1913, p. 1157) from the hypophyseal gland.

DIAGNOSING ACUTE PANCREATITIS

An examination of the tryptic and amylolytic digestion is not sufficient for establishing an acute inflammation of the pancreas, S. Nagy claims in the *Wiener Medizinische Wochenschrift* (1913, No. 9). However, the diagnosis is certain when the splitting of the fat amounts to less than 70 percent.

ALKALI-THERAPY IN SEPSIS

Basing upon the idea that septic processes engender acids in the blood, as also in view of their physiologic action, alkalis in massive doses have been given for years, in the clinic of Dr. Tilmann at Cologne, in all cases of severe pus formation of a septic character; the dose of the sodium bicarbonate being from 10 to 20 Grams; or half as much for children.

The results of this therapy, according to a paper read by Dr. Vorschuetz before the German Society of Surgeons in March (*Muench. Med. Woch.*, 1913, No. 16), have been excellent, and the explanation given is as follows: (1) alkalis act as catalyzers; (2) they

cause retention of the water in the tissues—turgescense, edema; (3) they induce a greater output of urine by the kidneys; (4) they stimulate the secretory glands of the alimentary tract, thus increasing appetite and digestion; (5) they give rise to augmentation of blood pressure.

As long ago as in 1890, Ehrlich expressed the view, based on his experiments with serum, that the bactericidal power of blood depends upon its saline constituents, but Dr. Vorschuetz decided to establish this by direct experiments upon living animals. Consequently, he took healthy rabbits and acidified their blood, and injected 50 Cc. of a 1-10 normal saline solution. Then he injected a definite amount of ricin. The result was, that those animals whose blood had been rendered acid succumbed to a dose of ricin that, under like circumstances, proved harmless to animals whose blood was not acidified and thus was capable of binding and making inocuous the poisonous proteid.

Those of us who have noted the profound disturbances associated with the acidemic state, and the marked improvement following its correction by proper alkaline medication, with sodoxylin, for instance, will appreciate the significance of Vorschuetz's observations.

NEUROLYTIC ACTION OF UNSATURATED FATTY ACIDS

Experiments with cats have demonstrated, according to H. M. Adler (*Arch. of Int. Med.*, 1913, No. 2), that unsaturated fatty acids exert a lytic action upon neural tissue. This neurolysis seems to depend upon the same factors that lead to hemolysis. May there not be here a hint in support and explanation of Dr. C. S. Pixley's assertion—that rancid cottonseed-oil gives rise to pellagra? (See 1911, p. 884.)

PURIFIED DRINKING-WATER

The *Bulletin* of the Chicago Department of Health gives the following simple directions for applying the hypochlorite method of purification of drinking-water for family or personal use:

Get a few ounces of the best quality of chloride of lime at any drugstore and prepare the following:

Stock Solution

Chloride of lime.....1 teaspoonful
Water.....1 quart

Keep this solution in a tightly stoppered bottle; a Mason jar or a thermos bottle being well adapted for the purposes, the latter especially when one is traveling.

Label the bottle "Stock Solution;" show the formula as above, and add the following directions:

"To purify water for drinking-purposes, add 1 teaspoonful of the stock-solution to 2 gallons of water."

If the water is turbid, strain it through fine muslin before adding any of the stock solution.

After adding stock solution allow the water prepared for drinking-purposes to stand *uncovered* for twenty minutes before using. This allows the gases to escape and makes the water more palatable.

RADIOGRAPHERS' MALADY: A NEW DISEASE

Scarcely has wireless telegraphy become a commercial reality, than "wireless-operators' disease" is announced as a new occupation-disease—at least that is the way *The Literary Digest* puts it in its citation of its German authority, *Elektrochemische Zeitschrift*. Since neither "wireless operator" nor "wireless disease" is a thinkable entity, we prefer to call the new disorder radiographers' malady. It is believed that the powerful electric waves involved and the accompanying ozone are at least the principal causative factor of the trouble; but other conditions contribute. In general, there is marked anemia, accompanied by headache, indigestion, loss of appetite, paleness. Similar disturbances have been observed in those working in high-tension plants, as at Niagara Falls.

SEXUAL PERIODICITY IN MEN

For many years it has been observed that some men present monthly cycles of sexual activity corresponding to the period of menstruation in women. C. P. Obendorff (*Med. Rec.*, July 5) cites several interesting cases of this kind which he himself has observed.

The first described is that of an Englishman, a man of 29, who experiences strong erotic cravings once a month, "at the time of the full moon;" during the rest of the month his sexual desires are very mild, indeed. However, when his "monthly period" is on, his sexual desires are almost uncontrollable, so that he has made it a practice to avoid women at this time, for fear of doing something indiscreet. Once, during one of these periods, he was committed for a short time to an insane asylum.

The second case is that of a man of thirty, who presents one strongly marked feminine characteristic, namely, a well-rounded and slightly pendulous left breast. His genital organs are normal. This man also has made the observation that his sexual desires are strong only once a month.

The third individual reported by Oberndorff also presents feminine characteristics, and was the passive agent in pederastic practices with two of his brothers when he was younger. He has masturbated since he was five years of age, being now twenty-nine. He is strongly homosexual. When nineteen, this patient first noticed that his sexual desires were strongest at the full moon, and recurred every twenty-eight days.

In all three cases, it will be observed, there are more or less strongly marked feminine characteristics.

HOW TO PREVENT ANAPHYLAXIS

Besredka, of the Pasteur Institute, Paris, has made some interesting studies anent the possibility of producing anaphylaxis, that is, of preventing the disagreeable and sometimes dangerous symptoms of serum poisoning following the administration of a second or third dose of a therapeutic serum. These experiments were described at the International Medical Congress, held in London, and published in *The Lancet* (Aug. 16, 1913, p. 462).

In experimenting upon animals, he found that by introducing into the body of an animal a small dose of the serum to be employed some time before the larger dose was injected, he could prevent the development of the toxic symptoms, even when the full dose would ordinarily be sufficient to cause death. He applies the same principles and the same methods to the serum treatment of diseases in human patients.

The interval necessary between the small and the larger doses, in order to prevent the anaphylactic symptoms, depends upon the route employed. If the remedy is given intravenously, ten to fifteen minutes suffice; if intraspinously, two hours, and, if subcutaneously, four hours. Assuming a hypothetical case, by way of illustration, Dr. Besredka describes the method of treatment as follows:

"It is dictated entirely by the condition of the patient. Let us consider a case of cerebrospinal meningitis, for it is in such cases that we are most likely to have accidents. We are called to a patient with meningitic symptoms, but the diagnosis is doubtful, and injection is usually put off till tomorrow. In such a case, do not leave without injecting 10 to 20 Cc. subcutaneously. It will not make the patient worse; on the other hand, if you decide on lumbar puncture the next day, the patient will get full benefit, for he will be already vaccinated against anaphylaxis and will be able to support immediately and easily 20 to 25 Cc. in the spinal canal.

"Take another case, occurring in the middle of an epidemic of cerebrospinal meningitis, but the diagnosis is not doubtful. A spinal injection of 20 to 30 Cc. is decided upon. If it is not a very urgent case, it is better to commence with an injection of 2 Cc., to let two hours pass at least, and then to inject the purposed 20 to 30 Cc. If the case is so urgent that each hour's delay brings, in the physician's opinion, added risk to the patient, the venous route should be employed. The serum should be diluted, say, 5 Cc. in ten times its volume of physiological water. Of this, 1 Cc. should be injected into the basilic vein; four minutes later 3 Cc. of the same fluid may be injected; two minutes later, 10 Cc.; after an interval of two minutes a final injection of 25 Cc. may be given.

"The patient can now be considered as vaccinated against anaphylactic risks. Clinical practice has demonstrated that he can receive ten minutes later an injection, intravenous or interspinal, of 10, 20 or 30 Cc. of pure, undiluted serum. These examples will enable the clinician to decide what method of antianaphylactic vaccination should be enployed in each particular case."

The same general method will apply in diphtheria, except that spinal injections would not be employed.

BACTERIN TREATMENT OF TYPHOID FEVER

Delearde and Leborgne (*La Province Médicale*, June 21, 1913, p. 273), tell of their experience, in the treatment with vaccine, of a number of cases of typhoid fever occurring in children. Ten cases are reported upon, 6 of these subjects having been vaccinated and the other 4 not. The patients all came from a locality visited by an epidemic of this disease, and where the mortality had been unusually high. Injections generally were made at five-day intervals, in doses suited to the age of the patient.

These cases are described in detail, the results obtained being about as follows: The

number of persons vaccinated was 6; the number not vaccinated, 4. Of those vaccinated, 2 died, while 1 died of those not vaccinated. There were 2 relapses among the vaccinated patients, and 2 relapses among those not vaccinated. Besredka's vaccine was employed.

The authors conclude that, in spite of the favorable results obtained by Ardin-Delteil, it did not appear at present that the vaccination method of treatment would replace the classical methods of dealing with this disease.

On the whole, this report seems generally supportive of the American position that, while typhoid bacterins are of great benefit in the treatment of typhoid fever, the greatest field of usefulness lies in the prevention of the disease.

RHINOPHYMA CURED WITH RADIUM

Radiotherapy has been successfully employed by Dr. Degrais, of Paris, in 3 cases of rhinophyma, 2 of these of the glandular type. Dr. Degrais (Congress for Physiotherapy: *Wien. Med. Woch.*, 1913, No. 16) applied the radium sulphate four times, each treatment of twelve hours' duration, and obtained very satisfactory diminution of the enlarged nasal organ and retrogression of the glands.

URINE EXAMINATIONS IN GONORRHEA

F. H. Pickin (*Lancet*, July 12, 1913, p. 76), employs a 2-glass test of the urine in the acute stage of gonorrhea, to locate the extent of the mischief and the effect of treatment. The patient is instructed to pass from 4 to 5 ounces of urine into one glass, and the remainder into the second glass. The deductions to be drawn are tabulated as follows:

Glass 1	Glass 2	Deduction
Turbid	Clear and bright	Acute anterior urethritis.
Turbid	Turbid; becomes clear on addition of acetic acid.	Acute anterior urethritis and phosphaturia.
Turbid	Hazy and turbid (but less than in Glass 1); not cleared by acetic acid.	Acute anterior and posterior urethritis.
Turbid	Turbid. (The turbidity equal to or greater than Glass 1.)	Acute anterior and posterior urethritis and cystitis.

This test is applied in chronic cases of gonorrhea and gleet as follows:

First the anterior urethra is washed out with weak boric-acid solution, the washings being collected in a small glass; a glass syringe with backflow being employed. Having set aside the washings collected in this glass, the patient is directed to pass his urine into two glasses, as in the acute cases. An examination of these three glasses gives valuable information concerning the location of the trouble and the effectiveness of the treatment. The following tabulates this information:

Anterior Urethral Washings	Urine Glass 1	Urine Glass 2	Deduction
Turbid	Turbid or hazy	Clear or slightly hazy	Anterior and posterior urethra affected. Bladder free.
Turbid	Turbid	Turbid. (Not cleared by acetic acid.)	Anterior and posterior urethra affected. Bladder affected. Examine for mixed infection.
Turbid	Turbid or hazy. Partly cleared by acetic acid.	Turbid. (Cleared by acetic acid.)	Anterior and posterior urethra affected, also phosphaturia.
Turbid or hazy, with shreds and flakes	Clear; no shreds or flakes	Clear	Anterior urethra alone affected. Examine for early stricture.
Turbid or hazy, with shreds or flakes	Hazy or clear, with shreds or flakes	Clear	Anterior and posterior urethra affected.
Clear; no shreds and no flakes	Hazy or clear with shreds or flakes	Clear	Posterior urethra only affected. Examine prostate.
Hazy, with flakes or shreds	Hazy, with many flakes or shreds	Less hazy, with few flakes or shreds	Anterior and posterior urethra affected. Look for mixed infection.

ANTISTREPTOCOCCUS SERUM

We gather from an article by George H. Weaver, in *The Journal of the American Medical Association* (Aug. 30, 1913, p. 661), that it is not clear just how antistreptococcus serum acts. It certainly, he points out, contains opsonins and perhaps other antistreptococcic bodies, but nothing is definitely known as to the part played by a true antitoxin, if any exists, in antistreptococcic immunity. A favorable course of a streptococcus infection in man, after the administration of this serum, usually is accompanied by falling temperature, improvement in the local and general toxic conditions, reduction of the leukocytes in the peripheral blood, and a rise in the opsonic index. There may also be an increased phagocytic activity of the leukocytes. Very likely there is also some antitoxic process.

To secure the best results with this serum, it should be brought in contact with the infecting bacteria as rapidly as possible, and this is best done by intravenous injection. However, if the condition is less urgent, the serum may be introduced intramuscularly or subcutaneously, the former being the method of choice when intravenous injection is impossible or contraindicated.

Ordinarily from 30 to 100 Cc. should be administered at one time. The full effect

is obtained almost at once if the serum is given intravenously; in a few hours, if injected intramuscularly; but only after twenty-four to forty-eight hours, if given subcutaneously. The dose should be repeated if the symptoms recur or if improvement comes to a standstill. A fall of the opsonic index after twenty-four to thirty hours, following an earlier rise, would point to the need of repeating the injection even in the presence of apparent improvement.

Dr. Weaver speaks highly of the local use of antistreptococcic serum in local infections. He asserts that this method of treatment is not as yet as generally employed as it deserves to be. To emphasize this last idea, we may suggest, for instance, that one of our most efficient remedies in the treatment of puerperal streptococcic infections is, to swab out the uterine cavity with that serum. This serum should also be applied to open infected streptococcus wounds, wherever they may be located. It certainly should be indicated in the streptococcus sore-throats which have been epidemic in some quarters during the last two or three winters.

THE IDEAL ANESTHETIC, AND HYOSCINE

Harvey Cushing, in his Address in Surgery, at the International Congress of Medicine held in London, makes the following interesting statement:

"Experimental therapeutics will in time doubtless give us the ideal anesthetic, in the form of a drug possibly allied to chloretone or scopolamine, a single injection of which will induce a prolonged sensitive sleep, perchance of long enough duration for primary wound healing to occur. Then will the surgeon's sense of responsibility, whether in laboratory or clinic, be greatly lightened, for undoubtedly today inhalation-anesthesia itself gives him his chief anxiety, and his patients, whether animal or man, their chief discomforts."

Let no reader of CLINICAL MEDICINE lose sight of the important fact that *hyoscine* is at last coming into its own among the great surgeons of the world. The sedulous care with which the term "scoplamine" is being employed in some quarters only intensifies the truth—which Crile's studies in anoci-association make all the more striking—that in this alkaloid we have one of the most important remedies for the relief of suffering and the salvation of life.

The combination of hyoscine and morphine is being justified, not alone in the work of our great surgeons, but in the varied experience of thousands of competent general practitioners. It may not be the ideal anesthetic for which Dr. Cushing prays, but it represents a long step toward that ideal.

PELLAGRA IN ENGLAND

The number of *The British Medical Journal* for July 5, 1913, contains articles by Box, Mott, Sambon, and Hammond, discussing several cases of pellagra which have been found in Great Britain, the disease now being known to be occasionally present as far north as Scotland and as far south as the Isle of Wight, although until recently it was not supposed to occur in England at all.

Sambon, in an exhaustive paper, presents an extended argument to show that the disease is transmitted by the bite of a fly, the simulium reptans. In this connection, we may call attention to an article by Jennings and King, of the Bureau of Entomology, U. S. Department of Agriculture printed in *The American Journal of Medical Sciences* (Sept. 1913, p. 411), in which a careful study is made of insects as a factor in pellagra. These authors come to the conclusion that the simulium (buffalo-gnat) must be eliminated as an etiologic factor in this country. However, the stable-fly (stomoxys calcitrans) may, they believe, be an important means for the transmission of the disease.

AMEBIC DYSENTERY, AND EMETINE

Another case of amebic dysentery treated with emetine is reported by H. L. McNeil in the August number of *The Texas State Journal of Medicine* (p. 137). The case was that of a negro who had been troubled with continuous diarrheal discharges extending over two years. Although he was treated in two hospitals, the discharges had never been arrested for more than two days at a time.

When the patient was admitted to the hospital he was having fifteen to twenty fluid stools per day, these containing some blood and mucus. No amebæ were found in the first stool examined. The patient was put upon the usual treatment for diarrhea, and an examination was again made some days later, following the use of the rectal tube, and two amebæ filled with red blood-cells were discovered.

Then the patient was immediately given a hypodermic injection of ½ grain emetine

hydrochloride, followed by ¾ grain of the drug the following day. On the third day after the emetine treatment was begun, the patient had only one stool, semisolid, and he volunteered the statement that he felt better than he had for two years. He was given two more emetine injections during the following week, and never again had more than one stool per day up to the time he was discharged. He claimed that this was the first time since the trouble had started, two years before, that he had had a solid stool.

HOW TO PREPARE RENNET-WHEY

Dr. Engel gives the following directions (*Deut. Med. Woch.*, 1913, p. 1252) for preparing rennet-whey, or, as Germans call it, "eiweiss milch."

Boil the milk, cool to 40° or 42° C., add rennet tablets (first allowed to disintegrate in a little water), stir well, let stand half an hour, again warm to 40 or 42 degrees, at about which time coagulation of the casein will set in. Watch carefully for this point, pouring some of the milk slowly, in a thin layer, from a tablespoon. The appearance of fine granulations indicates the setting in of action of the ferment, and the milk from now on must be stirred gently until separation is complete; which is only a few minutes, and the casein should appear in floccules, very finely divided.

In case the reaction is retarded, then once more warm the milk, as before, to hasten coagulation. To the milk thus prepared, add an equal volume of water, previously boiled, and set aside. In half an hour, pour off the upper half of the liquid and place on ice. The lower half, containing nearly all the casein as a sediment is rejected. This preparation has approximately this composition: Albumin, 27 to 31; fat, 21 to 34; lactose, 30; ash, 4.5; calcium oxide, 1.4, in Grams per liter.

ALLANTOIN AS A LEUKOCYTE STIMULANT

A solution of allantoin, consisting of 10 centigrams of finely powdered drug suspended in 5 Cc. of water, was injected intraperitoneally in guinea-pigs by Berthelot and Bertrand (see *Comptes Rendu, Soc. Biol.*, vol. 73, p. 263), and it was found to increase the local resistance to infection by the cholera vibriones and typhoid bacillus. This favorable action was found to be due to the stimulant action of leukocytosis. The others conclude that the action of allantoin in promoting cicatrization results, in part at least, from its favorable action upon phagocytosis.

SALVARSAN IN YAWS

Salvarsan is now being employed in a number of other diseases besides syphilis; for instance, excellent results have attended its use in amebic dysentery, in relapsing fever, and pernicious anemia. One of its greatest triumphs has been in the treatment of frambesia, or yaws, which is also caused by the spirochete.

Ehrlich, in his address before the International Congress of Medicine in London (reported in *The Lancet*, Aug. 16), says that in Surinam a hospital, in which over 300 patients with frambesia were constantly under treatment, was closed and turned to other uses after the introduction of the salvarsan treatment, as one single injection sufficed to cure the disease, and the patients could all be discharged, but two. It is to be hoped that in this way it will be possible to extirpate frambesia altogether.

Exactly the same favorable results have been attained with recurring fever in the human subject, the fever immediately subsiding after the injection of salvarsan, and the patients being cured by one injection.

ARE LECITHIN AND CEPHALIN OF VALUE IN PARALYSIS?

Some noteworthy studies of the chemistry of the brain, especially as regards the presence of phosphorus-containing bodies, have recently been made by Ernst Salkowski (*Biochem. Zeitschr.*, 1913, p. 407). His work, and other recent studies upon this subject, are embodied in an editorial in *The Journal of the American Medical Association* (Aug. 23, 1913, p. 603), from which we reproduce the following:

"It has long been believed that some of the diseases of the central nervous system, particularly those in which anatomic lesions or alterations are known to occur, are attended by changes in the chemical makeup of the tissue. Owing to the technical difficulties in the analysis of nervous matter, the proof has not easily been furnished. Not long ago Carbone and Pighini asserted that in the brain of individuals dying of progressive paralysis the proportion of one of the brain phosphatids, cephalin, is markedly reduced. This announcement promptly awakened the hope of a corresponding therapy of nervous disease.

"Several years ago Franchini attempted to 'enrich' tissues in lecithin by the administration of lecithin. He employed the product prepared from egg-yolk and believed that he could actually demonstrate a deposition of this lipoid in the liver. In the case of the brain, however, no evidence of any increase in phosphatids could be discovered as the result of furnishing egg-lecithin to the body. Frankel contends that the human brain does not contain the ordinary lecithin, but a phosphatid of different type—a triaminodiphosphatid, which he has named 'sahidin.'

"In view of the differences in the results of experimental feeding suggested by the specific peculiarities of the species, Salkowski, the well-known pathologic chemist of Berlin, has been impelled to repeat the experiments on phosphatid administration, using the closely related cephalin in place of lecithin. The outcome of his trials with animals has been, that cephalin—already an article of commerce—is well tolerated and apparently readily absorbed. In contrast with what Franchini reported for lecithin, cephalin was not deposited in the liver, but was said to become stored in the brain.

"When one examines Salkowski's data critically, however, they bring little conviction. The actual increment of phosphatid found by him—and that in only a very limited number of experiments—is so small as almost to fall within the limits of experimental error in such kinds of investigations. Salkowski argues that in a tissue which resists alterations in its chemical makeup as stubbornly as does the brain, the increment of even 5 percent of any component (the figure recorded for his cephalin trials) is noteworthy. He therefore suggests that his experiments justify the attempt to employ the otherwise harmless cephalin in progressive paralysis and other cerebral affections."

The Journal makes these investigations the text for a lecture upon the inpetus which will be given to the commercializing of lecithin therapy by these investigations. It believes that Salkowski's observations will be used by the not too scrupulous "nostrum vender" to reap a harvest among those who are endeavoring to give relief in certain classes of diseases now generally considered wellnigh hopeless.

Admitting the undesirability, indeed the danger of holding out unwarranted hopes of benefit to be obtained from remedies of this class, there certainly is every reason why practitioners should give lecithin and cephalin a careful trial whenever there is any hope of benefit to be obtained from them. As Franchini shows, probably no benefit could be expected to result from the use of lecithin made from egg-yolk. On the other hand, nerve-lecithin derived from brain-tissue is deserving a careful trial in every instance of this kind, especially since it is known that this form of lecithin is really a mixture of true lecithin and cephalin.

We urge the readers of this journal to investigate this remedy in all cases of beginning paralysis of central origin. If, as Salkowski believes, the remedy has a reconstructive action on brain-tissue, it should also be of value in practically every case of neurasthenia and postoperative shock, in which, according to Crile, there is brain-cell degeneration, as a result of the exhaustion or explosion of brain-energy.

ORGANIC PHOSPHORUS SHOULD BE USED IN THERAPY

M. S. Maslov, in an article in the *Petersberger Medizinsche Zeitung* (see *Chemical Abstracts*, 1913, 2759), reports a series of experiments made upon dogs to determine the therapeutic efficiency of different forms of phosphorus. Maslov came to the conclusion that the animals were incapable of synthetizing inorganic phosphorus compounds. He is of the opinion that phosphorus should not be given for therapeutic purposes. For remedial action, the organic preparations are preferred, and the administration of lechithin is advised when this element is indicated.

THE TREATMENT OF ERYSIPELAS

There appears an interesting editorial upon the subject named in the title in the July 16 number of *The New York Medical Journal* (p. 189). As regards the newer local measures recommended in recent years, the editor points out that those in which heat is the predominant factor seem to have held their own. Hot compresses of saline solution frequently renewed (Pontano) as also the hot-air douche applied from one-half to one hour two or three times a day (Ritter) have given good results—probably by increasing the efficiency of the lymphatic antibodies. Buttermilk applied with soft compresses kept constantly wet has recently been extolled by Arnold. Of other applications, an ointment composed of chlorinated lime, 1 part, and paraffin ointment, 9 parts, is urgently advocated by Binz. One of the older remedies, pure alcohol (a powerful antiseptic), has

recently gained many adherents. Magnesium sulphate in saturated solution has been highly praised, owing to its ability to control pain, decrease the local hyperthermia, and prevent extension of the morbid process.

The physician should not lose sight of the value of some of the newer remedies, notably the streptococcus bacterin and the antistreptococci serum, both of which are indicated; the latter particularly in very severe cases. Internally, the tincture of ferric chloride still holds its own in asthenic conditions, while readers of this journal certainly will not forget the value of calcium sulphide, which should be given in every instance to complete saturation.

BACTERIN TREATMENT OF ACNE VULGARIS

Dr. Philip H. Kreuscher (*Surgical Clinics* of John B. Murphy, Aug. 1913, p. 549) gives the following principles as underlying the successful treatment of acne vulgaris:

1. The determination and isolation of the causative organisms.
2. The knowledge and experience necessary for the determination of the dosage and the interval between inoculations.
3. The general condition of the patient and the degree of virulency of the infective organism.

In 15 cases of acne vulgaris treated in the Murphy Clinic, staphylococcus albus was found in 90 percent. Kreuscher says that theoretically the acne bacillus should always be present, but remarks that probably it was overlooked because of the difficulty of growing this organism, and this difficulty probably explains the unsuccessful attempts of treating the disease with autogenous bacterins.

Perhaps we may suggest that it also indicates the desirability of using reliable stock bacterins containing the acne bacillus and the staphylococcus albus.

Another reason for failure, declares Dr. Kreuscher, is the fact that the dosage of the acne bacillus vaccine has been too large. He also believes that the physician should watch and modify the coagulability of the blood. If this is too rapid, the patient should receive large doses of sodium citrate; on the other hand, if it is too slow and the patient does not improve immediately, it is necessary to give 10-grain doses of calcium lactate.

In two of the cases reported, Dr. Kreuscher states, all lesions subsided after three or four injections, and have not returned. Some of the patients improved rapidly after the fifth or sixth injection; only one was not improved at all.

ROUTINE USE OF TETANUS ANTITOXIN IN WOUNDS

Dr. Philip H. Kreuscher, writing in *The Surgical Clinics* of Dr. John B. Murphy, (Aug. 1913, p. 548), states that it is Dr. Murphy's practice to give tetanus antitoxin in all cases of injury or gunshot wounds in which there is an open lacerated wound inflicted by machinery or implements which have been in contact with the dust or dirt. This is the routine practice at the Murphy Clinic and has been followed in a series of over 150 cases. So effective has been the prophylactic action of the serum that Dr. Murphy has not seen a case of tetanus originate among these hospital-patients in seven years.

The usual dose given is 1500 units; the serum being given therapeutically when occasion arises. Dr. Kreuscher has had occasion to see in a distant city a tetanus patient in whom the symptoms developed nineteen days after the primary infection. Repeated injections of the serum were given, whereupon the more violent symptoms subsided. The patient had no muscular twitching for ninety-six hours before his death.

It may be added that it is now the general practice among all surgeons of standing to administer tetanus antitoxin prophylactically whenever a wound has come into contact with dust or dirt. Thus used, it can be depended upon to prevent absolutely the subsequent occurrence of this usually fatal complication.

AMEBIC DYSENTERY TREATED WITH SALVARSAN

Wadhams and Hill report to *The Journal of the American Medical Association* (Aug. 9, 1913, p. 385), their experience with three cases of amebic dysentery (in two of which the Wassermann reaction was negative, while in the other it was positive), in which the presence of the ameba of dysentery was demonstrated. Following an injection of salvarsan, these parasites disappeared from the stools, with complete relief from clinical symptoms. The authors state that, while these three cases prove nothing, the results are so striking that they believe them worthy of report.

In view of the remarkable effects following the use of emetine hydrochloride in this dis-

ease (a drug which is nontoxic and free from danger), it is hardly likely that salvarsan will ever become a popular remedy for this form of dysentery, although it is not improbable cases will be found which resist the emetine treatment, and where it will be worthy of a trial.

BACTERIN TREATMENT OF HAY-FEVER

In an editorial in a recent number of CLINICAL MEDICINE, we advised our physician friends to experiment with autogenous bacterins in the treatment of troublesome cases of hay-fever; of course in association with the indicated medicinal remedies.

We find support for our advice in an article by Dr. Philip H. Kreuscher, cited, in another place, in the Surgical Clinics of Dr. John B. Murphy (Aug. 1913, p. 551). He says: "Last August we treated three cases of hay-fever with a mixed stock vaccine containing for the most part the streptococcus. Two of these cases did not find it necessary to change climate during the hay-fever season, as had been their custom for many years."

BACTERIN IN JOINT INFECTIONS

The largest and best field for biologic therapy, according to the experience at the Murphy Clinic, as reported by Kreuscher (*Surgical Clinics* of John B. Murphy, Aug. 1913, p. 553), lies in the treatment of the acute and chronic joint infections. However, it is the field in which it is the most difficult to procure cultures for the making of vaccines or bacterins, for these reasons: (1) the large number of atria of infection; (2) the various types of organisms causing the arthritic troubles; (3) some patients had their primary infection twenty or thirty years before presen ing themselves for treatment; (4) it is often impossible to obtain a culture, even from the b ood, which can be used in the preparation of a bacterin.

Three classes of cases are described by Kreuscher:

1. A type presenting gradual and insidious onset, from which no organism can be obtained from the joints, blood stream, secretions or excretions.

2. A chronic type, with infection originating in the mouth, pharynx, tonsils, respiratory tract or intestinal tract, in which a specific organism cannot be found, but which yield to mixed bcaterins.

3. A type, either acute or chronic, in which it is possible to isolate a distinct organism or organisms which is believed to be the cause of the trouble.

The first class of patients obviously is the most difficult to treat and yields the least satisfactory results; however, very favorable results are occasionally obtained. Kreuscher says that the pyocyaneus bacterin has proven quite satisfactory in many of these cases of rheumatoid arthritis.

In the second class of cases, there is usually a history of a more acute onset, characterized by chill, rise of temperature, pain and swelling of the joint, and partial or total incapacity. Several joints often are affected; many of these cases of a chronic type dating back many years. The majority originally had some type of nose or throat infection; a smaller number had infections of the genitourinary tract, of the alveolar process, of the gastrointestinal canal, the respiratory tract, or, also, furunculosis or other lesions of the skin.

Good results were obtained in this class of cases with mixed vaccines containing the staphylococcus streptococcus, colon bacillus, and pneumococcus [This is the general type of the van Cott combined bacterin.—ED.], pneumococci predominating when the infection originates in the respiratory tract; the colon bacillus when it originates in the gastrointestinal or biliary passages. Dr. Kreuscher says, when a severe action follows the administration of a vaccine of this type, we can feel quite sure that the proper organism has been chosen.

In the third class of cases, those in which a definite organism can be secured, whether of an acute or chronic type, Kreuscher avers they can reasonably hope to get good results. Several cases are described in detail.

He claims that through this line of treatment in the Murphy Clinic they have had splendid results in patients who were totally incapacitated and almost hopelessly deformed, showing that many of these individuals may be taken from the "scrapheap" and restored to usefulness. The profession has been self-satisfied in making a diagnosis of "rheumatoid arthritis" and turning the poor victim over to the fates. It is time, he asserts, that some effort was made in a therapeutic line.

[All too many have looked upon the serums and bacterins as "specific." They are rarely so. The rather, they are adjuncts to other, selected therapeutic measures and as such, properly selected and applied, they are a great help.—ED.]

MISCELLANEOUS ARTICLES

How Can I Increase My Income?

WHEN we announced, in August, that we were arranging a series of articles upon the business needs of the physician, we felt uncertain as to how the plan would be received—doctors are so notoriously careless about their own finances. Consequently, we have been pleased to receive a large number of letters from correspondents, generally approving the idea. In one of these, published elsewhere in this number, a Virginia doctor now 67 years of age, tells us that, with the exception of a few years when he was in the Indian service and received a $1000-salary, his income has rarely exceeded $600 annually, and much of the time has been around $300 or $400.

This gentleman is a well-educated man, whose letters show him to be intellectually above the average; he is a graduate of the University of Pennsylvania; and he had the benefit of a hospital interneship following the receipt of his medical degree. He is not complaining—indeed, he has had his share of blessings, and tells us so.

However, the very fact that good doctors and good men are compelled to skimp their way through life on such pittances shows the necessity of a thorough business shakeup in our profession. The doctor cannot do his best work when he is deprived of the means to buy books, take magazines, attend the societies, take postgraduate courses—to say nothing of having relief from the constant anxiety as to how he shall manage to eat, drink, and be clothed.

It is because we believe that the problem of the doctor's income is vitally important to most of us that we have opened up the question in these pages. Following we give the titles of a few papers already promised.

"Bettering the Doctor Himself." By Maynard A. Austin, M. D., Anderson, Indiana.

"Medical Partnerships—an Experience in Successful Cooperative Practice." By F. E. Walker, M. D., Hot Springs, South Dakota.

"Equipping the Doctor's Office for Better Work: A Symposium." Conducted by Alfred S. Burdick, M. D., Chicago, Illinois.

"Refraction Work for the General Practioner." By Thomas G. Atkinson, M. D., Chicago, Illinois.

"The Country Surgeon's Equipment." By Ralph St. J. Perry, M. D., Farmington, Minnesota.

"Making Good in Emergencies." By George H. Candler, M. D., Chicago, Illinois.

"Emergency Surgery in the Country." By Ralph St. J. Perry, M. D., Farmington, Minnesota.

"The Surgery of Chronic Conditions." By Ralph St. J. Perry, Farmington, Minnesota.

"Making Good Medically in Chronic Conditions." By George H. Candler, M. D.

"Electrotherapeutics as an Aid to Financial Success." By H. C. Bennett, M. D., Lima, Ohio.

"The Private Hospital as a Means to Success." A Symposium.

"Ethical Publicity for the Doctor." By Henry B. Hollen, M. D., Chicago, Illinois.

"Keeping Accounts and Collecting Fees." By Henry B. Hollen, M. D., Chicago, Illinois.

Other articles are being arranged for this series. Also, every reader of CLINICAL MEDICINE is invited to participate, either by contributing reports of actual business experience, by suggesting topics for discussion, or by letters of advice or criticism.

It is not to be expected that we, in our editorial office, however closely we may keep in touch with the men on the firing line, can know all the needs of the field. We intend that this series shall be a veritable clearing house of experience and suggestion for mutual profit.

The main thing is, that every contribution should be of a really practical nature. While a certain amount of discussion of principles is necessary, we want to get right into the inner heart of every doctor's troubles, and that means the giving of details. So we are asking everyone to tell just what books, journals, instruments, equipment, furniture,

preparation, instruction, and *money* are required in every instance to attain the object aimed at.

THE TREATMENT OF SEASICKNESS: "MAN OVERBOARD"

It seems almost impossible that a sea-journey of some 6000 miles, such as I have just made as surgeon on a steamship running between New York and Buenos Ayres, could be experienced with only two occasions for the exhibition of remedies for sea-sickness, yet such is the fact. And this is not an exceptional condition of things but the usual history. Cactoid continues to be efficient in the early stages, as previously noted, but care must be observed to eliminate cases of early and usually unrecognized pregnancies, and those with chronic fecal accumulations.

On the outward voyage there were six patients in the apathetic state of mind that usually presages retractivity, when the cry of "man overboard!" made further medication unnecessary and provided the mental shock that promptly restored the sufferers to normal.

But this event, though it finished the need for cactoid opened the way for the employment of hyoscine, morphine and cactoid to excellent purpose. The man who went over the side was a fireman, evidently suffering from alcoholic mania. The maneuvers customary in such cases were promptly effected, the man was pulled into the boat, mechanically restrained and brought on board. He was delirious, not incoherent but had delusions and to prevent another attempt to go overboard was put in the steamer's hospital and restraint continued.

One full dose of hyoscine, morphine and catoid was given by the hypodermic route and was calmative in a few minutes. An active cathartic was also given. The next day the hyoscine, morphine and cactoid was given once and on the morning of the third day the patient had fully recovered his balance, but had no recollection of events since leaving port. He at once took up his work and had no relapse.

S. Austin Davis, M. D.

Brooklyn, N. Y.

[In The American Journal of Clinical Medicine, in August, Dr. Davis (who runs between South America and New York on the Lampert and Holt Line) reported excellent results in the control of the mild cases of sea-sickness and in the early stages of this distressing ailment through the use of cactoid. The severe cases he brings under control quickly through the use of hyoscine, morphine and cactoid. In the interesting letter printed herewith he gives another use for the latter remedy. Hyoscine, morphine and cactoid is a winner almost everywhere.—Ed.]

LET US GET RIGHT DOWN TO BUSINESS

Your editorial in the August number, "Let us get right down to business," appeals to me. Having been in active practice for now more than fifty-seven years, some few words on my experience may not be amiss.

First, while I always have been a conscientious doctor and not branched out into any specialty, I have been a business man and have conducted my work on a business basis, believing that the laborer is worthy of his hire. Nor has this line of success been purchased by deviating from ethical standards; for not only am I, as a religious man, a devout believer, but, as a man, my ethical conduct has been strict, and I have been rewarded with every honor the professional brethren of my state could give me.

Prior to the War I lived in middle Alabama, and in those times much of the practice was on large plantations, where the master was responsible, so that there seldom were any bad debts, except such as might be contracted in any little town. Coming out of the Confederate Army with one dollar cash and a mule, I settled in the little town of Gainesville, Alabama, and here I lived for eighteen years. During all those years of the reconstruction time, with all its horror, till 1890—and this in an impoverished country—I collected $72.28 out of every $100 that went on my books during the eighteen years. I was indulgent when necessary, and never hard; but my patrons understood by business methods and stood by me when attempts at underbidding for services were made by competitors.

When on May 29, 1883, I came to Birmingham—now a flourishing city of 180,000 people, but then in its swaddling clothes with a population of only 9000—a perfect stranger, the same plan was steadily pursued from the outset; but if strict business methods have taken from me any patronage worth retaining, I do not know it. Thus far this month $13 only has been credited, all the rest was cash.

I believe that, notwithstanding severe competition, any honest man whose practice is worth retaining will respect more, and the more readily pay, the doctor who conducts his work on strict business plans.

E. H. SHOLL.

Birmingham, Ala.

[We agree with Dr. Sholl—the physician who is scrupulously exact and painstakingly conscientious in his business relations is always respected more than the one who lets things slide. People generally take us at our estimate of ourselves. If we do not think our services worth a fair price, and then insist upon getting that price, we shall always be hard up. We purpose to develop more interest in this matter of charges and collections. We want every successful man to tell us his methods—not in a too general way, but in detail. Who will come forward?—ED.]

SEPTIC ARTHRITIS: BACTERIN TREATMENT

When one encounters a child with an otherwise normal bill of health, giving a history of scarlatina, measles, tonsillitis, and perhaps also mumps, and presenting well-marked septic endocarditis and arthritis, it is a pretty safe guess that one has to do with a streptococcic infection derived from one or all of the diseases mentioned. The more I see the after-clap of these exanthemata (and I see a great deal of that very thing in my dispensary-work with children), the more I come to regard them in the light of streptococcic infections, which attack chiefly the epithelial and endothelial tissues, wreaking their first, and most violent, havoc upon the former (which soon mend), and their second, more deadly venom upon the latter; and these are not so quick to recover.

Thus, by this backward process of reasoning, I am coming more and more to treat these subjects of endocarditis, arthritis, pleuritis, and nephritis of postexanthematous origin and the rest of the train of sequlæ, with streptococcus bacterin. Such a case recently came under my observation, one which illustrates my point and demonstrates the soundness of the therapy.

A little girl, six years old, had, within four or five weeks, gone through successive attacks of measles, tonsillitis, and mumps, finishing up with an acute arthritis and endocarditis. When I first saw her, she showed a temperature of 103.5°F., a pulse of 140, and her heart had that peculiar galloping, metallic, arrhythmical quality which every clinician has learned to associate with endocarditis. There was, besides, a distinct systolic murmur, which, however, I diagnosed as functional, since there were no physical signs of cardiac enlargement. The right knee was swollen to about twice its normal size, tense, red, and exquisitely painful. The blood count showed a 15,000 leukocytosis and a hemoglobin index of 70.

For the first twenty-four hours I gave the child digitalin and aspirin, for the purpose of controlling the heart a little and starting renal elimination. On the second day I gave a 20,000,000 dose of strepto-bacterin, and 4-drop doses of nuclein solution, continuing the nuclein throughout the treatment. For two weeks I prescribed no other treatment, except, of course, the ordinary hygienic measures, such as bathing, normal salt enemata, and keeping the bowels in order.

After the first twenty-four hours from the administration of the bacterin the temperature and pulse began to fall steadily, reaching normal on the fifth day. The swollen knee just as steadily diminished in size, redness, and sensitiveness, and the child's general condition improved remarkably. At the end of the second week she was sufficiently recovered so that she was able to be out.

I do not pretend, of course, that this little girl is well, even at this writing. Still, she has quite recovered from her acute attack and is well on the way to complete recovery. Her temperature, pulse, and blood count are normal, with the exception of a slight hemaglobin deficiency. I am now giving her arsenic and nuclein.

Two or three points I would like to bring out in the reporting of this very interesting case. Indeed, it was for this that I am writing about. The first is, that I went upon the assumption, as intimated in my introductory remarks, that it was a streptococcic invasion, and the outcome vindicated my position.

Second, that I prescribed no other remedy besides the bacterin. And especially do I wish to emphasize the fact that, with the exception of the first twenty-four hours, during which the child took some 30 or 40 grains of aspirin, I gave no salicylates whatever. For renal elimination I relied wholly upon normal salt enemata and copious drinking of weak lemonade; which latter I always give under similar circumstances.

Third, that I administered nuclein in conjunction with the bacterin. This is another of my routine practices. To my mind, nu-

clein is the logical accompaniment of bacterin or vaccine treatment.

Bacterins do not increase leukocytosis; they only prepare the germs for digestion by the leukocytes. Nuclein does increase leukocytosis, by increasing the nuclein elements in the blood, and thus promotes the other side of the defensive process to which vaccines are directed.

At all events, I invariably prescribe nuclein in conjunction with the bacterins, especially when the blood count demonstrates low hemopoietic power; and to this practice I attribute the encouraging success that I have thus far have experienced with the vaccine treatment of septic cases among children.

T. G. ATKINSON.

Chicago, Ill.

THE TOM-TOM

Some men must beat the tom-tom, this I know;
Some forms demand that this be so.
Strange incantation calms the inner fear;
Though beatings do not cause to disappear
The evils which molest—but hold in chain
The victim by an unrelenting rein.
The beating of the tom-tom passes not;
The past race-habit some have forgot;
When evil comes, within dire fears arise
And for the tom-tom superstition cries.
The evil spirit which the tom-tom states
Is but the spirit which their fear creates.
Here comes a jade, hysteric, and obsessed
By thoughts of ills of which she's not possessed.
Impatient of advice that heals not dread,
She hastens to the tom-tom's beating head,
And there obtains the healing she desired—
'Mid dance and timbrel— by the tom-tom inspired.
Comes now a hypochondriac with limp and moan—
The healing art to him no balm hath shown;
No cure is known, and naught can meet his case.
Save the historic tom-tom of his race.
He turns his face into night and sees
His evil vanish—and the demon flees.
So "pathies" rise, and beat and scare away
The festering ills; all sicknesses obey
The tom-tom's rappings. And the mysteries
His mind knows not, nor yet his vision sees;
Submissive, all his dread of heart is still.
For evil demons part which vexed him ill.
How often unto this new pathic cult
Will sick men turn this pathy to consult;
We question not why some men ever beat
The tom-tom—'tis racial habits that they meet.
The tom-tom and the beater in command
Are but the answer to racial demand.
This "science" clever—which doth not belong
To Christ, the master over every wrong—
Blasphemously with tom-tom makes its din,
In His dear name the credulous to win,
To catch, beguile, and forcibly aline
Them subjects to a healing so divine.
The mind, the flesh, the bone hath each in turn
Been given cheer and hope of health's return;
The tom-tom's beats lift higher than the reach
Of wisdom which the learned sometimes teach
And he who strikes a bone is greater far
Than he who fathoms truth or finds a star.
The racial habit, with compelling force,
Deep laid in cell through all life's running course,
Instinctive and asserting springs to view,
Despite advancement, culture, and the new;
It calls for repetition of the things of yore,
And sounding tom-tom helps this impulse to encore.
Why seek by law to silence fraud and sin
Occasioned by the tom-tom's ceaseless din?
Naught else can please the superstitious heart
But fraud, pretense, which seems an occult art.
Best, patiently continue to evolve
The mind, to educate—the problem solve.
Till then the tom-tom's din will long be heard,
And with some legal form it will be geared.
You can not hush the mocking beat and thud
Of that old instrument hailed as good.
The racial life, repeating in it flow,
Will rise and all your pleadings overthrow.

JAS. A. DEMOSS.

Thayer, Kans.

DIPHTHERIA. ECLAMPSIA

On May 24, 1902, I was called at about midnight to see a young woman suffering from "pneumonia" and, upon arriving, found these conditions: pulse, 110; temperature, 103.6 F.; respirations, 30; a hectic flush on both cheeks; a little grunt with each breath, which was very characteristic of the disease that had been diagnosed by a physician the day before. The physician who called the day before had promised to return the next morning, but failing, they sent for me.

It seemed to be pneumonia, as the doctor had diagnosed; yet, there was a peculiar cough that I had never heard in pneumonia. The bed standing in an alcove, I had it moved where better air could be got and gave the room a thorough ventilating, and removing everything, including the "company" of neighbors. The patient, 18 years old, had always enjoyed very robust health and was a fine specimen of young womanhood. I prescribed a turpentine jacket, soon had the temperature reduced, and caused the bowels to act freely. A slight headache, which she had when first seen, was now almost gone, and, after remaining two hours, I left her feeling very much better. Yet, that peculiar cough still sounded in my ears.

Calling next morning bright and early, I found her without the pneumonic symptoms. The throat presented a rich mahogany hue; no swelling; no white spots; nothing—only the rich mahogany hue and that peculiar cough. Her temperature was 1 1-2 degrees above normal; pulse, 96; skin, slightly moist. All emunctories were reasonably active, and I ordered the same treatment continued. But, still that peculiar cough and the mahogany hue of the throat haunted me. That afternoon I was informed that the girl's nose

seemed stopped up. Going over at once, I examined her nose with a good light, but, not seeing anything suspicious, I merely applied a soothing nasal jelly. Next morning, while seeming as well as she was at my second visit, her nasal trouble continued; and thus it persisted for the next several days.

Then one day, passing by the house about midnight, I stopped in and examined the girl's nasal cavities again with a strong light and this time discovered a peculiar grayish-white membrane, brittle and hard, extending down into the anterior nares, and bleeding freely when broken off. I now realized that I was dealing with a case of diphtheria, in all probability, but unfortunately not a vial of antitoxin was obtainable in the surrounding pharmacies. However, since no time must be wasted, I began to give calx iodata in large doses and told the mother not to allow anyone else in the room; to burn everything that had been about her nose and mouth—every rag, handkerchief and towel she had been using—and not to convey any textile to their own faces or mouths, eyes or nose, unless previously boiled.

Next morning I got a sample of the urine and found it loaded with albumin, which helped to confirm my diagnosis of diphtheria. Procuring 2000 units of antitoxin, this was instantly administered. After a lapse of twelve hours absolutely no result was apparent; so I administered another, a 5000-unit dose of antitoxin. Again waiting twelve hours, I found that the false membrane, while not growing, had not changed any, had not turned brown nor was beginning to peel off. Hence, I administered another 5000-unit dose. At the expiration of another twelve hours I noticed no results, and so once more injected a 5000-unit dose—making 17,000 units in all. This was my first experience with 5000-unit doses, and my first experience with a case of diphtheria in a grown person, or where there was no false membrane in the throat and this appeared in the nares only.

I have related this experience to a number of physicians in this city, and not one of them, as they say, has ever had a similar case. I read several authors on that subject at that time, but could not find anything like this case, neither could I get any suggestive help from any source.

This patient's chum had kissed her on the mouth before we realized what the trouble was, and in five days she was down with a severe sore throat. I was called to attend her, and I treated her with calx iodata with most satisfactory results, and inside of a week she was up again and as strong and hearty, apparently, as ever.

I have written about this case very much in detail so that anyone else meeting with a similar one may be able to go through with it and handle it without any misgivings, especially as to the large doses of antitoxin when necessary. I wish to add that eight months after I dismissed this young lady she would have what seemed like strokes of paralysis; but by giving large doses of a laxative, alternating between calomel and cascara, which eliminated the toxins, the trouble would be relieved. Some physicians recommended static electricity, but I did not deem that advisable, and am glad to say that now, after more than three years, she is the happy mother of two bright babies, has had no more paralysis, and is enjoying the very best of health.

Here is one other experience. On August 1, last, I was called to attend a confinement, the second after an interval of twelve years. The mother's face was badly swollen, while labor-pains were not just right, notwithstanding digital examination disclosed that conditions were otherwise normal. I assured the woman that everything was coming along as nicely as one could expect, and in about four hours was gratified to see her delivered of a girl of six and one-half pounds. Everything progressed nicely as to time and cutting the cord and getting the placenta, and conditions seemed all right, and nothing seemed out of the ordinary except the badly swollen face.

The following day passed without anything unusual, and the morning of the next day her condition seemed good; but in the afternoon I was informed. Calling on her at once, I found that the lochia had stopped, and I prescribed the following: Calomel, grs. 5; morphine sulphate, gr. 1-2; quinine sulphate, dr. 1; capsicum, grs. 2. Make into 30 capsules. Directions: Take one capsule every two hours, until the lochia are started, then every four hours. I also told them that, if the lochia did not start in four or five hours, to let me know.

About six hours after that she had a convulsion, and then another. As I was not at home when the call for me came, another physician was sent for. This brother, I was informed, put his finger on the pulse, took her temperature, looked at her a little, said nothing was wrong, then took his departure.

I arrived at the bedside about half an hour after this doctor had been there. I stopped the medicine that had been given to her, and

in place gave her 1-2 grain of morphine sulphate and one dosimetric granule of veratrine. While realizing that her condition was immediately serious, still she seemed to be somewhat better under the influence of the opiate. However, while I was talking over the telephone with a medical friend about this case, with a view to getting him in consultation, the woman suddenly had another convulsion. I took care of her as best I could, to keep her from lacerating her tongue with her teeth, and watched her through this seizure, which lasted only a few minutes (while the first one had lasted about one-half hour), then telephoned my friend, asking him to come over.

Without delay I gave another granule of veratrine, hypodermically, and, on the arrival of my consultant, gave another dose. Her pulse now softened, the sweat-glands began to act, kidneys acted, bowels moved, and while she complained of feeling very tired, she said she felt so very much better, turned over on her side and fell sound asleep. I explained things to my friend, who has been in practice about twenty years, and he declared he never had met with a case like it.

I have been practicing about seventeen years, and I never before encountered such a case. The treatment here described is the same I always have followed under similar circumstances. I have seen convulsions prior to delivery, but never subsequent to delivery. I should like to know wherein I erred, if I did err. I have other expectant mothers in hand now; two of them will likely be confined ere this gets into print, if it does get into print at all; and I cannot afford to lose any mothers, as my record shows but one lost in my entire practice—and at that time there was complication with meningitis, she having had six convulsions before I arrived. If I have made a mistake in caring for this case, I want to know it, and know it now.

Had the mother been afflicted with Bright's disease or some other kidney disease, her baby would not be as fine and healthy as it is. She gives a history of a miscarriage about four years ago, which has left her with an inflamed area in the region of the right ovary. She had treated by many doctors for this inflammation, but no one seems to have benefited her. I have been treating her now about three weeks, and when I saw her on the 15th inst. she was entirely free from pain or soreness in that region. A. W. BLEIL.

Kansas City, Mo.

[If we might presume to criticize Dr. Bleil in that first case, we should suggest that he should have had a bacteriologic examination made of the secretions from the throat and nose, doing this just as soon as the patient developed suspicious symptoms. That would have removed all uncertainty. Of course he did right to give the antitoxin without delay and in large doses—indeed, in a case of nasal diphtheria we should be inclined to give at least 10,000 units immediately, and if the case were very severe double that quantity might be administered. The large dose is in no sense dangerous. In *every* case of diphtheria, antitoxin should be employed, calx iodata and other indicated remedies being also used, as Dr. Bleil suggests.

We are glad that Dr. Bleil has again called attention to the value of veratrine in eclampsia. It is a great remedy, and too often neglected.—ED.]

A STUDY OF THE CONVALESCENCE FROM MORPHINISM

My excuse for writing this article is, that I believe that members of the profession in general largely hold erroneous opinions in regard to the morphine habit, and I believe an appreciation of the facts would serve a useful purpose, making it possible for us to secure a higher percentage of permanent results.

A frequent, and in a measure excusable, misconception is, that the convalescence is very rapid—a misconception which I believe to be responsible for many a relapse. Considering the powerful character of the drug, we should expect the reverse to be true. And it is.

The change for the better in the patients' appearance is rapid. The improvement in appetite is rapid. The gain in flesh is rapid. The convalescent may say, and honestly believe, that he never felt better in his life. The family doctor, looking at him and seeing that his eye is bright, his countenance clear, and that he has gained in weight, may be excused for believing him. Both are wrong.

No one who has been in the clutches of morphine from five to thirty years can remember anything about what his feelings of real health were before taking the drug. This party, who thinks he never felt better in his life, will find that, if all goes well, he will be feeling ever so much better a month hence, and go on feeling increasingly better each passing month for a year to come. And it is self-evident that when one is really well he cannot increase feeling better.

A part of the convalescent's feelings of well-being is due to purely psychic causes. For the first time in perhaps years he finds that he is actually living and breathing without the aid of morphine. The sun shines brighter, the grass and foliage seem greener. The joy of existence is enhanced to a superlative degree, which those who have not experienced it can scarcely conceive of.

Now let us return to a consideration of the increase of appetite.

Judging from the abnormal increase in the cellular activity in the testicles, we may reasonably conclude that there is an abnormal increase in the cellular activities in those organs that have to do with digestion. When the convalescent was under the benumbing influence of morphine, the brain had to send out greater and greater motor stimuli to all parts of the body to keep the vital processes in motion. In the meantime the inhibitory impulses would be growing weaker and weaker.

Now, it scarcely would be conceivable that nature could at once tone down these motor stimuli or at once tone up the inhibitory stimuli the moment the last dose of the poison is withdrawn. Hence the increase in appetite may easily be due to a lack of nervous balance.

The mistake consists in thinking the increase of appetite and flesh means complete convalescence. I do not believe the increased appetite is harmful, in most instances, if the convalescent will take the precaution to eat only plain, well-cooked, nutritious food, because there seems to be an accompanying increase of digestive power. I believe the sooner the convalescent becomes fat and lazy, the sooner he will reach a desirable state of mental and nervous repose.

An easy way to prove that the convalescent is still far from normal, in spite of improved looks, appetite, and gain in weight, is to give him a long problem in addition to solve, or ask him to write a long letter, or, if he be a mechanic, give him a task that requires coordination of eye, hand, and brain, and then see how completely exhausted he very soon becomes.

The doctrine of "free will" seems to linger in the minds of many. And I believe that this doctrine is the cause of many a relapse. Modern psychology teaches that strength of will is utterly dependent upon our physical well- or ill-being. The convalescent's will is, necessarily, weak. What is the poor fellow to do then? I teach my patients not to rely on the will, but upon caution and discretion. Timidity, fear, and self-depreciation are prominent features of the morphine psychosis. This makes it easy for the convalescent to exercise caution and discretion. And, for the same reason, I find them teachable.

Unfortunately it is different with the whisky-and-morphine habitués, as also those taking both cocaine and morphine. The self-assertion, overconfidence, and impatience of the chronic alcoholic continue after the latter has added morphine to his whisky addiction. Even after the whisky addict has discarded spirits entirely for the more subtle intoxication of morphine, many features of the alcoholic psychosis remain in a greater or lesser degree for a long time.

We often hear this remark concerning some reformed drunkard: "Yes, he is all right now, but the bar-room manners still cling to him." It is a question how much of the manners here referred to are due to bar-room associations and how much to the direct effect of the alcohol on the brain. The alcohol-and-morphine convalescent is as weak in caution and discretion as he is in will-power. For this reason he has much less ability, after leaving the sanitarium, to conduct himself along safe and rational lines than has the straight morphine convalescent. When cocaine is added to morphine, more or less mental instability is apt to persist during convalescence, making permanent results less hopeful than with morphine alone; although cocaine-and-morphine users are more likely to pass through convalescence safely than those addicted to whisky and morphine conjoined.

I would much rather treat a person addicted to morphine for thirty years, who takes 60 grains a day and appears to be a physical wreck, than a habitué in apparently good condition taking 2 grains a day in connection with either whisky or cocaine, or both. Of course, this remark applies only to the period of convalescence. No inconsiderable amount of tact and skill is required to take the first type of patient off the drug and beyond craving, especially when this is to be accomplished without shock, and without the aid of restraint or surveillance or knockout doses of hyoscine or similar drug. But it may be very easy to do this with victims of the second class.

This is a matter of very great importance, as will appear from what follows. A matter of some importance to ourselves, because, if our work were confined to these mixed cases, it would be almost impossible—no matter how faithful and conscientious we might be in

our work—to maintain a reputation for honor and fair dealing, let alone a reputation for successful work. Yet we do, many times, get brilliant results in these mixed cases. For this reason and because they are in such a deplorable state we feel bound to do our best for them.

But it is a matter of far greater importance to the thousands of victims of advanced straight morphinism who are being doomed to lifelong slavery and misery because their medical advisers ignorantly suppose them to be beyond help.

It is thought by many that the correct way to handle the stage of convalescence is to keep these patients under restraint. For some of the mentally unbalanced having the habit mixed it is perhaps the better plan. But there are two reasons that may be urged against its general application.

The first objection is, that restraints are expensive, and very many addicts would be denied assistance on this account.

In the second place, enforced restraint teaches the convalescent—by inference at least—that he is an incompetent weakling. Then, when at last he is turned loose, at the first headache, toothache or bellyache that comes along he is apt to give up at once and slump back into his old morphine-ways.

My patients are called upon to exercise self-control the very first day of their treatment and told that they may take morphine on the side if they wish, but if they want to get well they must not do so, and that I expect their assistance throughout the entire course of treatment. So, by the time they leave me they have already had considerable training in self-reliance.

The reader may think my reasoning faulty, in that volition is required to exercise either caution or discretion. My contention is, that the morphine-addict's self-distrust is so great and his fear of relapse is so intense that he generally has sufficient will-power to exercise both caution and discretion; especially so after he has been thoroughly instructed in regard to the dangers that are likely to beset his pathway in the future.

I believe that alcohol is responsible for more than one-half of the relapses among men, and for not a few among the women. You all know the old, old story—"he never would have done it if he had not been drunk."

Any drug that deadens consciousness is equally dangerous. Although such are not so often resorted to by the laity, many doctors have brought on a relapse by indiscretion in this respect.

Overwork before convalescence is complete is a very frequent cause of relapse. And the sad part of it is that in many instances the convalescent is compelled to go to work too soon because of lack of money. They almost always are too sensitive to seek assistance from their friends; and it is here that the family doctor might prove of great service to us by acquainting the convalescent's friends with the grave danger he was in from going to work too soon.

The convalescent should be able to perform without fatigue the test-tasks that I mentioned earlier in this article, before taking up serious work. This applies with especial force to members of our own profession. Think of a doctor taking up the arduous duties before he is able to add up a long column of numbers without becoming completely exhausted. Yet many have been guilty of doing that very thing, and many no doubt will repeat this indiscretion in the future. They are always in a hurry to get home to hold their practice, forgetting that no practice is worth a tithe of what it is worth to be forever free from morphine.

If the doctor goes home directly after leaving the sanitarium, looking and acting better than he has been for years, his patrons will see no reason why they should not at once avail themselves of his services. For this reason he should first spend a few weeks elsewhere.

The increased sexual appetite may lead some to frequent houses of ill-repute. Here they come into contact both with alcohol and morphine, as many of the inmates of these places use morphine. The proper way to avoid the disagreeable features of erotism is by cold sponge-baths and cold sponging of the spine.

Where there are no prudential reasons to the contrary, it is best for the convalescent to admit freely that he has taken treatment for morphinism. By so doing he burns his bridges behind him and receives the powerful moral support of his friends.

I once knew a man in a Michigan city who had been blind for twenty years and acquired such facility in feeling his way about town with his cane that he could go to any part of the city almost as well as if he could see. His sight was restored by an operation. On his first trip down town, after being able to see, he became so confused he had to ask a friend to lead him home. It would naturally occur to one that something similar would happen to one who finds himself absolutely free from mor-

phine toxemia for the first time in years; and such indeed is the fact. It may be a mere feeling of strangeness, and it may amount to positive mental confusion.

I try to keep the patient by me until this stage passes off. The morphine-psychosis does not at once pass away with the last dose. The first thing to return is a normal amount of pride and self-respect. The last thing to return is the power to perform mental or physical labor without undue fatigue.

In conclusion let me say that the convalescent who tries to avoid the dangers mentioned in this article, with fear and trembling, is the one who is likely to succeed. Happily there is one thing we can promise without fear of mistake. When once the craving for morphine is gone it cannot be reestablished unless the person cured first returns to the use of the drug.

C. B. PEARSON.

Baltimore, Md.

THE PRAYER WAS OMITTED

The article in the July CLINIC, "The Quality of Courage, and a Chloroformed Indian," is very interesting as well as suggestive, particularly so General Sibley's prayer under trying circumstances; and this story reminds me of an incident in which a prayer was called for at an Indian wedding but failed to materialize.

There is an Indian reservation in the southeastern corner of Connecticut where a very small remnant of the Pequot tribe still holds forth. In my boyhood days there were living on the reservation quite a number of Indians of different tribes, with an admixture of negro-blood. However, the white man's firewater and religion have proven incompatible with the Indian's nature, and they are now nearly extinct as a race.

This Pequot tribe at the time referred to had an overseer or commissioner who looked after their welfare. This overseer was also a justice of the peace, which officials were authorized to tie the marriage knot. On the occasion referred to, the "squire" took my father, Major S., along to the reservation, to serve as a witness to a prospective marriage.

After the 'squire had pronounced the couple duly spliced, he turned to Major Stanton and said that one more thing had to be done, and this he, the major, would have to do.

"And, pray, what is that?" queried the major.

"Make a prayer," replied the 'squire.

"All right," responded the major, "but there is still another duty to be performed, and if I say the prayer you must attend to the other part."

"And that is—?"

"Kiss the bride."

"No, no," blurted out the gentleman, "I'll be d—d if I will—you just omit the prayer."

And so it was that two important ceremonials of the solemn proceedings never materialized.

GEORGE D. STANTON.

Stonington, Conn.

GENERAL SIBLEY AGAIN

Referring to the communication of Mr. Doane Robinson, of Pierre, South Dakota, appearing in CLINICAL MEDICINE for August (page 690), I will say that I am very sorry, indeed, if in telling a perfectly true story of General H. H. Sibley (see July issue, page 608) I have done a "*grave* injustice to the memory of one of the great men of the Northwest."

Certainly, nothing was further from my intention. I honored General Sibley more than any other man I ever knew, excepting my own father, who was Captain of Company C, 30th Wisconsin Volunteer Infantry, and who accompanied us on that memorable trip. Sibley may have been an Episcopalian, but, if he was, he never paraded that fact, and I never heard of it before.

General Sibley was a gentleman, a fighter, and a disciplinarian; and, although his speech usually was "chaste" and elegant, when he got excited or angry (and he was human enough for both), his language at times was what you would call more "forcible" than elegant or polite; and, while I have heard him use the same words that you sometimes hear in a bible-class, they were not always what you would call Sunday-school sentences.

I have heard it said that no man is a great man to his barber; meaning, I suppose, that familiarity breeds contempt. In the capacity of orderly to General Sibley, although I was but a boy, I have shaved him, cut his hair, beat him at checkers, laughed at his stories, slept with him, smoked with him, hunted and fished with him, and through it all he was always a great man to me, and he is yet.

I do not believe the perfectly true story I told about him will strike any fair-minded man as a "grave injustice" or that it willhurt his reputation, either as a religious man or as a soldier and fighter. However, if it does, I will apologize; but I stick to the story.

Fifty years ago, there were very few men in the "Northwest" but who knew how to swear. In moments of intense excitement or anger, men sometimes drop into profanity, just as real Irishman, from the "ould sod," drops into his brogue when excited or angry, no matter how well he has learned to speak the English language in its purity.

Sibley's prayer was an appeal for aid, and was couched in the language of a report to the Commander in Chief of the Army. I remember it word for word, and I gave it as I remember it. And that is the truth of the matter. "Oh, that mine enemy would write a book!" Thus exclaimed an old critic. "Grave injustice to one of the great men of the Northwest!" exclaims the historian Doane Robinson.

History, as a rule, is more generous to a man after he is dead than he really deserves. I am both generous and just. I believe a man can be human enough to swear in strenuous moments and still be a Christian. If not, some of us are going to fare rather poorly when the final balance is struck.

I think that a real historian of Dakota as it was before it was divided could prove that Sitting Bull was a Christian statesman; that Wounded Knee was a member of the Salvation Army; that Big Jumping Bear was a captain among the Volunteers of America; and that old Rain-in-the-Face was a Sunday-school superintendent.

"Do you get me, Steve?" *My story is true.*

GEO. D. SWAINE.

Cleveland, Ohio.

"MORE READERS THAN SUBSCRIBERS"

You have an excellent journal, but there is one point in which it differs from the rest. You have *more readers than subscribers.* It is one of the *few* readable journals published. It is seldom stacked in the corner with the rest, unread.

B. F. VAN DUZEE.

Hamburg, N. Y.

PHARMACOLOGICAL WORK AT WASHINGTON

The United States Civil Service Commission announces an open competitive examination for a professor of pharmacy at the Hygienic Laboratory of the Public Health Service at Washington, D. C. The salary will be about $4500.00 a year.

The position is open to some man who has had broad training, extensive practical experience in various branches of pharmacology, physiology, physiological and pharmaceutical chemistry, chemotherapy, and so on. The applicant should have ten years' experience in work of this kind, educational training equivalent to that required of Ph. D., and some experience in clinical medicine. He must not have reached his forty-fifth birthday on the day of his examination.

If you are interested, write to United States Civil Service Commission, Washington, D. C.

CLEANING UP CHINA

We sometimes make a mistake in writing about such a big country as China. Lack of traveling facilities has made each place a law unto itself so far as customs are concerned; whence, to say that certain things are characteristic of all China, is liable to mislead. In the north the Chinese have wagon-roads, but they have only cow-paths in the south. Many of the streets in Peking are wide, but those of Nanking are not. So, one needs to be careful when making too general statements about prevailing conditions in the land of China. None, however, need have fear when speaking about the sanitary conditions, for it is pretty safe to say that China—north, east, south, and west—is dirty, very dirty.

Nevertheless, some think that the Chinese have certain good ideas about sanitary principles. Thus, for instance, as a rule they put on more clothing as the weather gets colder, and take it off gradually as the summer season approaches. On a suddenly hot day in early spring they will be dressed just as lightly as in midsummer.

The Chinese drink but little alcohol and now do not smoke opium. Even the cigarette is boycotted in many places.

They sweep the bare ground in front of their doors. Their streets have drains. Stone pavements cover most of the city streets. They burn up every thing possible as fuel, anything combustible that they cannot eat or wear or sell or use in building their houses. Everything seems to be utilized. Melon-seeds, weeds, shrimps, snails, minnows; the lungs, kidneys, spleen, and intestines of slaughtered animals—all are utilized for food. Rags are used for shoe-soles and mops. Feathers become dusters and toys. What the rich do not want becomes clothing for the poor, and what the poor folk cannot eat keeps the beggars alive—when it does not kill them. Nothing whatsoever is wasted. Back to the soil it goes and enriches it for producing more

food. All this seems to sound as if China had good ideas about hygiene and sanitation.

And the people do, if they only would work the process fast enough. The trouble is that the garbage-pile stands too long before being transported back to the field. On the banks of the stream which furnishes the city-water lies the dump, when the springtime arrives, with its sunshine and rain, rotting there and polluting the waters. The street-drains are imperfectly stone-lined and soon become filled with black filth. The houses have the corners filled with all manner of possessions, behind and around which gather dirt and gambol rats and mice. The butchers do not differentiate any too nicely between living animals, and diseased, dying, and dead ones: to them, all is meat. Old donkeys and horses, dead water-buffaloes, even dogs and cats turned into meat find buyers among the poor and poverty-stricken. We should eat them, too, I ween, if we were as poor and as ignorant as some of these godforsaken creatures are.

In very deed, we have to go very slow when considering China's theories and actual practices in regard to sanitation. Most of the theories are observed in the breech. The Chinese are supposed to drink only water that has been boiled; yet, very little of the water drank ever reaches the boiling point. Along with their hot foods, quantities of melons, cucumbers, radishes, turnips, and most fruits are eaten raw. Flies have walked all over most of these, and those displayed for sale on the streets are handled by many befouled hands before the final purchaser devours what he has bought.

In the teashops and restaurants, the waiter carries his wiping-cloth (rather dishcloth and wiping-cloth combined) around in his belt. It hangs against his dirty clothes, is used alike to wash dishes, clean tables, wipe chopsticks and teacups, flip the flies off the vegetables or drive away the hungry dog.

Garbage-dumps are left indefinitely at the corners of streets and on vacant lots. Manure is carried by the gardeners to open tanks in their fields. These form breeding-places for flies, and too many of them are not far distant from the city streets. In summer time the sweetmeats, fruits, meats, and breadstuffs exposed for sale become covered with these bacteria-carrying pests.

Add to these conditions the lack of any form of quarantine, the prevalence of cholera, dysentery, septic infections, smallpox, and tuberculosis, together with the frightful death rate among infants, to say nothing of the prevalence of infanticide, and we can see that China is a rich field for the testing of the value of sanitary principles.

In the new era of the founding of the republican form of government, the new officials have had to consider first those questions which press hardest, such as finance, transportation, international realtionships, agriculture, mining, the voting franchise, and restriction of lawlessness. They have had little time for thought for the sanitation of cities, the saving of infants, the banishing of epidemics.

In the midst of such a vast population the few doctors who have set up mission-hospitals here and there have not been able to produce a very great number of Chinese physicians trained in western medicine. The old style Chinese doctor knows absolutely nothing about sanitation. Until the recent changes, foreign doctors (those in missionary service in China now number about 500) have been unable to gain the public ear upon this important question. Practically all that could be done was to minister to the sick who came to the hospital, teach a few helpers or students, and enforce sanitary principles in the hospital. The consequence is that the Chinese at large have learned almost nothing (and apparently cared very little to learn) about this subject so important in its relation to the business, education, morals, and society of any country.

The door has now opened to missionary doctors to add public teaching of the principles of sanitation to their other missionary work. The door has been opened to them both by the local people among whom their hospitals have been located and by the government of China. Note the address made by the President of the Republic, Yuan Shi Kai, to the Medical Missionary Conference which met in Peking in January, 1913. This address was given in a most kindly manner. His reception was much more cordial than even official translation, which I quote in part, reveals.

"It gives me great pleasure to receive here so many members of the China Medical Missionary Conference," he said. "I am really very grateful for the charitable services you have rendered the people, especially in the interior of the country where they do not know the importance of sanitary principles.

"For a country to be strong and prosperous, it is essential that its citizens be healthy. Sanitation is, therefore, of the highest importance. It is due to you, who

have directed them to study those principles, that sanitary knowledge and sanitary methods are now being widely spread. . . . . The disastrous plague in Manchuria, in 1911, at one time alarmed the whole world. Many of you were engaged in assisting the local authorities to devise means of prevention, and the checking of the extension of the pestilence was principally due to your efforts.

"At the time of the Revolution, when the North and the South were at war, many were killed and injured. Many of you, facing difficulties and running risks, were out in the field to relieve a large number of sufferers. I feel very deeply indebted to you and regretted there was no opportunity for me to thank you in person. I am glad that, in receiving you today, I am able to express my personal thanks. I also entertain the hope that on your return to your several spheres of usefulness you will guide our people with the same zeal that you have always exerted so that in time to come they will be strong in body and mind."

During the days of the revolution other forms of mission work had to be more or less suspended. Medical workers found ample service in ministering to the sick and wounded and turned their hospitals into Red Cross headquarters. Others followed the armies and opened field-hospitals. Often the foreigners were called upon, who were able to stop useless bloodshed. Noncombatants had a feeling of safety when a foreign missionary still stayed by his work in their city. Such work firmly established the medical worker in the hearts of the people, and they have since shown willingness to listen and to adopt his suggestions in regard to sanitary or other useful measures.

One great difficulty in the way of the medical work that has been done in the past was that most of the patients were not sanitary in their habits and, hence, it was almost impossible to heal their diseases. How could itch be healed when the patient took not one bath all winter long? The same difficulty faced the treating of all skin troubles. Digestive disturbances persisted because of the faulty dietary of the patients. Ulcers grew to unparalleled size, because the patient persistently kept them covered with a dirty plaster, shutting in the septic microorganism. The observance of sanitary laws is more important in China to the healing of most diseases than any medicine which can be given.

This has lead a number of the medical missionaries and others to prepare posters and leaflets, to be given to patients, which contain directions as to his own hygiene in treatment. Dr. Logan thus inaugurated in his city, in the fall of 1912, a regular educational campaign against cholera. The Shanghai Board of Health, under Dr. Stanley, has prepared a number of posters on tuberculosis, cholera, smallpox, the plague, and on general sanitation.

This last autumn we were requested to give a series of lectures to the medical students on sanitation and hygiene. These lectures were first given to the schools and invited educated people of our city. Many schools attended lectures in body. There was, usually, no trouble about getting an audience. It would have been impossible to have attracted such an audience, to hear the foreigner, five years ago.

Subjects which could be easily understood and made practical were chosen. Outlines of the lectures or simple statements of the principles to be discussed were posted up and advertised. Rough drawings of flies, mosquitoes, food comparisons, appearances of various germs, and so on, were used to illustrate. Chest measurements were made. Children came up and illustrated sitting at proper and improper attitudes in schoolroom.

Disease-germs being spread from the sick; preparation and selection of foods; cleaning of streets and homes; flies and their relation to garbage, closets, and germs; public playgrounds and public gardens versus public nuisances; school sanitation; public markets, and quarantine proved to be fruitful and interesting topics to them.

Some of the things we found necessary to emphasize were, that public rights must take precedence before private rights; "cleanliness is next to godliness;" public closets not only lead the people to higher morals but leave clean places for their children's playground; it is better to become fruitful rearers of children than fruitful producers; boards of health will find that eternal vigilance is the price of community health and that a few days of slackness may undo months of previous activity.

Medical missions have too often been considered by the laity as merely a means of getting a hearing from non-Christians for the gospel. The medical missionaries of China are living witnesses to the narrowness of this view; and if they were doing nothing else they would be rendering both that country and the world at large a service in that they are beginning to demonstrate that there is

a still greater field for our activities in aiding to build up a new and a cleaner China.

ELLIOTT I. OSGOOD.

Chuchow, China.

A MONSTROSITY

On April 28 I attended a woman at childbirth. Her age was 20 years, and it was her first child. It was found to be a monstrosity of female sex, a description of which may interest some of the readers of CLINICAL MEDICINE.

The right arm was not developed, there being only a small protuberance of about the size of a piece of lead-pencil one-quarter of an inch in length.

The sternum and spinal column curved to the left, forming almost a half-circle. The skin and muscles over the right half of the lower chest and abdomen were so thin they were transparent. The heart was situated at the lower end of the sternum and could be seen to beat. The liver was on the outside and had no covering whatever, being firmly attached over the right mammary gland. Just below the liver two knuckles of intestines were on the outside, coming out and reentering the abdomen through two well-defined and separate openings. The heart, liver, stomach, and intestines were all normal in form and size. Circulation was perfect, the blood-vessels entering the liver through the chest-walls. The child lived fifteen minutes.

I am very sorry that the accompanying photographs are not satisfactory. They were taken with a kodak, but the skin or membrane had ruptured in handling before I could get a camera.

I would like to know the cause of this malformation. Of course all the old women in the neighborhood have the problem solved. The husband shot and killed a bird about the second or third month of his wife's pregnancy; its intestines and liver were shot out and his wife picked it up while the heart was still beating. So, of course, the women say it is a "mark." If it is a mark, it is a mighty heavy one. Let me hear the opinions of the medical professors.

J. J. CRAWLEY.

Overbrook, Okla.

[The photos sent by Dr. Crawley are so poor that we shall not attempt to reproduce them; however, the doctor's description is so good that the nature of the defects will be clear to every reader. In this case the monstrosity is due to defective development, with imperfect closure of the thoracic and abdominal walls. Technically it would be known as a case of *thoracogastroschisis*. The limbs may also share in the defective development in cases like this, which are no longer regarded as due to fright or prenatal "marking." All these monsters fall into certain well-defined and carefully defined classes, with scientific names for every species and variety.—ED.]

TREATMENT OF INFANTILE PARALYSIS

For three summers we have had to deal with infantile paralysis. Three years ago we had under treatment four cases, two years ago we had five cases and last year, three; making eleven in all. These cases all occurred in the country or in little hamlets; some of them were in quite remote places along the foot of the North Mountain. There never was more than one case in a family, although there were as many as five children in some of the families. The age of those afflicted ranged between one and one-half and sixteen years, but the latter was only past the seventh year. All the patients recovered, but one, a girl, was left a hopeless cripple. She was absolutely helpless and for a long time could not move even her head; still, at present, she has recovered the use of all her muscles except those of the lower limbs.

The sixteen-year-old patient, a boy, used crutches for a while, then a cane, but is able now to walk fairly well without the aid of either. All the rest have fully recovered. The severe cases were those of three years ago.

The treatment in the main was as follows: A thorough clean-out with calomel and podophyllin was followed by pushing the sulphocarbolates and an occasional purge with saline laxative, until the stools were odorless. The temperature was controlled with aconitine, gr. 1-800, given every twenty or thirty minutes until the skin became active, the arterial tension lowered, and the temperature dropped to within proper bounds. For the toxemia, iodized calcium and nuclein were pushed to saturation. If the heart showed signs of weakening, cactus was administered. Strychnine was given after the acute symptoms had subsided, to restore tone to the weakened nervous system. The children were kept outdoors in the shade as much as possible during the acute stage; as soon as able they were given their toys and allowed to play at will.

They were massaged twice daily, especially the parts that were paralyzed; while those that were badly emaciated were given a rub with olive oil.

Now I desire to call the reader's attention to two factors in my treatment that I believe did more good than anything else. These were the aconitine during the early stages and the massage later.

The readers are aware of the value of aconite in puerperal eclampsia and in convulsions of various kinds. I believe that, if I had pushed the aconitine three years ago, as I did the two seasons following, I should have saved at least one patient from being a cripple.

Don't fail to push this drug in the early stages until its physiologic effect is produced; watching its action closely. Then begin massage as soon as the acute symptoms subside and finish with an inunction of sweet oil or cacao-butter. It is remarkable how rapid the atrophied muscles fill out under influence.

C. W. CANAN.

Orkney Springs, Va.

COPPER SULPHOCARBOLATE AS AN INTESTINAL ANTISEPTIC

Not only has copper sulphocarbolate a place in the treatment of humans, but in animals as well. Veterinarians are now employing it in the treatment of bowel disturbances in dogs and cats as well as other animals.

Recently a case of cholera developed in one of my chickens and the veterinarian whom I called in, after prescribing for the fowl, advised me to place a piece of "bluestone" in the water for the other chickens. Not having any copper sulphate at hand, I made a solution of the sulphocarbolate and gave it to all of the flock, sick and well. At first the solution was made in the strength of 1 grain to the pint (1:7000). This might be considered too strong, possibly, but none of the fowls showed any bad effect and none of them refused the water.

The sick hen was given a 1:2000 solution of corrosive sublimate, in addition to the sulphocarbolate solution, and recovery was prompt. It is impossible, of course, to determine which of the remedies was the effective one in this instance. However, as no other attacks developed, it is very probable that the sulphocarbolate was at least an effective prophylactic. After the first few days of use of the sulphocarbolate the strength of the solution was reduced, until at present it is about 1-20 grain to the pint (1:14,000). The chickens have all done well under such treatment, and I am practically sure that they have been receiving water almost, if not quite, free from pathogenic or other organisms.

It is possible that this report would better have been published either in a farm-journal or one devoted to veterinary medicine, but I am offering it because of the fact that I know that many doctors are the possessors of poultry, while not a few are far removed from veterinary assistance, and that possibly this little experience might be of some value.

The veterinarian who had this case in charge had never employed copper sulphocarbolate in this way before, but after observing the results obtained reached the conclusion that this salt gave better results than did the sulphate.

I have had a bottle-fed baby under observation for some time. Owing to a change of residence, this babe was put on sweetened condensed milk for a short time, long enough, though, to develop a marked fermentation and considerable bowel disturbance, with consequent loss of weight. After full establishment in the new home the baby's diet was changed to cow's milk. Still, for some time the trouble lingered, the stools being frequent, loose and ill-smelling.

Following a clearing out of the bowels with calomel, I administered copper sulphocarbolate, 1-64 grain, every three or four hours, with the happy result that conditions soon became normal. As a prophylactic and to be reasonably assured that the organisms in the milk be inhibited, I added the sulphocarbolate, in small amount to the water employed in diluting the milk. The result was, that as long as milk so treated was given there was no return of bowel disturbance and that the child gained weight. The mother neglected to advise me when her supply of the sulphocarbolate was exhausted, with the result that a slight bowel disturbance occurred. Another clearing out with calomel, followed by the sulphocarbolate as formerly, acted as a corrective, and the babe is now as nearly normal as any child could be.

During the middle of July I was called to see a boy of four who had marked enterocolitis. At 7 in the morning the temperature in the axilla was 102.4°F.; there was a rise to 104.1 at noon. The history of the case was, that the patient had, the day before, eaten raw carrots, turnips and fruit and topped off with an ice-cream soda and more raw fruit. His bowel movements were very

ill-smelling and showed much undigested raw fruit and vegetable matter.

I cleared the bowels with calomel followed by laxative saline, gave aconitine to control the pulse (130 to 140) and temperature, and copper sulphocarbolate as an intestinal antiseptic. In addition to the aconitine, to control the fever and to act as a quieting agent, he was given several cool baths. As soon as his bowels were cleared signs of improvement appeared, and the following morning he awoke with a normal temperature. The copper sulphocarbolate was continued for several days, and, although he was on a limited diet for only a day or two subsequent to the acute attack, there was absolutely no sign of any bowel disturbance or of food decomposition.

In less than a week the youngster was as active as usual and taking an interest in all things happening about the ranch. It is possible that the clearing of the bowel had much to do with the cessation of the acute symptoms, but I believe that the copper sulphocarbolate overcame a tendency to a prolonged attack and that it acted as a prophylactic against recurrence.

GEORGE L. SERVOSS.

Gardnerville, Nev.

THE DEATH OF DOCTOR DENIS R. BOGUE

It is with regret that we have to announce the death of Dr. Denis R. Bogue, of Cincinnati, which occurred on August 5. Doctor Bogue was one of the earliest workers in the field of active-principle therapeutics in this country, having been associated with those old dosimetric war-horses Silva, Harper, Copeland, and Thackeray as a traveling salesmen for the Metric Granule Company, which these four connected many years ago in this city. Later he embarked in business for himself, for some years being the moving spirit in the American Granule and Tablet Company, in Cincinnati, of which he was the organizer.

Dr. Bogue has always been warmly interested in dosimetric medication, and was an earnest disciple of the great Belgian master, Burggraeve. We were proud to count him among our friends.

A mutual friend, Dr. J. R. McMillan, of Cincinnati, writes us that Dr. Bogue "always tried to measure up to his possibilities." While he never made as much money as many other people, and never had realized half of his ideals, he did succeed in raising a family of loving, loyal children; he was liberal clean, and honest; he was a seeker after scientific and artistic truth—and, as Dr. McMillan asks, "who could say he was not successful?"

We are glad to have an opportunity to give this brief tribute to a man who was our friend and who worked earnestly for the betterment of our therapeutics.

A GONORRHEA CURE AND OTHER HINTS FROM DR. W. T. THACKERAY

While it is seldom that I can offer anything new, yet occasionally it does happen, and while my present experience may not be new to others it certainly is to me.

The case: A young friend went to San Antonio on a visit and—well, there is no use in telling the story of his lapse of virtue. Anyway, he appealed to me five days later to help him out of a "bad scrape." And it was a bad scrape, for a fact, for he had a gonorrheal infection far up in the urethra, and domestic duties confronted at home that placed him in a thoroughly embarrassing position.

For a long while I figured over our old-time remedies, but could think of nothing that offered present help. Then I took a good big think, which decided me that thuja and echinacea seemed to fit the condition and that, if there was any virtue in reports, I might expect prompt results.

As a result of this overworking of my think-tank, I prescribed specific echinacea, gtt.5, and specific thuja, gtt. 3, to be taken every four hours; and, as an injection I ordered potassium permanganate, 1-4 grain dissolved in 1 ounce of water to be used after each micturition. To my great surprise, after three days all signs of the disease had disappeared. Today, ten days after the invasion, I made a micropscopic examination (through the kindness of a brother doctor) of the urethral secretion, and there was absolutely no sign of gonococci.

I know of no other report of a similar case, nor do I know that the same experience will be had by others; still, it is worth the trial. I do want to say, that in this case I have made a friend who is worth having, since he is related to nearly everybody in this section, and he thinks that I am "it."

I want to add that I have just received a copy of the new Price List of the Abbott Alkaloidal Company, and I am pleased to note that they have restored pepsin to its proper place. I know that, among some physicians who do not know how to use pep-

sin and who expect more from it than it promises, this valuable digestive ferment has fallen into innocuous desuetude.

Now, it so happened that some thirty years ago I was interested in Professor Schaeffer's experiments with pepsin, and I made some of the material after his method. Last fall, while attending the Congress of Hygiene in Washington, I visited the Bureau of Chemistry of the Department of Agriculture and Dr. Kebler, chief of Drug Division, advised me of the tests thay were making with pepsin, and I told him that I had some samples of Schaeffer pepsin that I made some thirty years ago and he requested that, if possible, I send him enough for a test. The following letter from the Department shows the result:

DR. W. T. THACKERAY, President Board of Health, Fowlerton, Texas: Referring to your letter of October 16, 1912, and our reply of October 23, 1912, concerning sample of pepsin that you kindly forwarded for our information, I beg to advise that an examination of the sample has been made according to the Jacoby-Solm-Ricin method, and the sample was found to be of U. S. P. strength (1 to 3000). Respectfully,

L. F. KEBLER.
Chief, Drug Division.

I sincerely hope that my experience with the gonnorhea case may prove of value to others and that I may induce some of my confères to give more study to pepsin.

W. T. THACKERAY.

Fowlerton, Texas.

A COMPLIMENT. TYPHOID FEVER. SEXUAL PERVERSION

I am "loving" our journal better with every fresh copy. Of six medical periodicals I take, I get more good out of CLINICAL MEDICINE, with *The Critic and Guide* second. I am a firm believer in Dr. Robinson's teachings about the controll of the size of our families. We control the number of the horses, cattle, sheep, or hogs we keep, not by destroying, but by causing or preventing the starting. Why not, then, prevent the "starting" of a vastly more important product than any of the creatures named. In my practice I daily see the need of this information among the poor workers of our cotton-mill.

What is wrong in my work this season? I am having too many typhoid patients among the children from the ages of seven to thirteen. I have never met anything like the present experience.

At first these children, when attacked, have some diarrhea for about two days, then they droop about for three or four days with a headache, and back, legs and arms pain them. Then I find them with a coated pointed tongue. Then the abdomen becomes tympanitic, skin is dry and hot, the pulse is high, temperature above 100° F., which (although I clean out, clean up and keep clean) gradually goes up day by day, passing the crisis by about the seventh to tenth day, when the fever as gradually comes down to normal. In evey feature it is a typical typhoid fever.

Why so much of it, Mr. Editor? Where do they get it? Why the greater percentage of this age? This is a general condition throughout our section.

A description of an interesting patient encountered last week will not take up much of your valuable space, and may amuse.

A bachelor—a stingy old fellow—having for years been troubled with constipation, resorted for a while to soap suppositories; then he used tallow ones; the latter finally losing their efficacy, for some reason he began the introduction of a Godfrey's cordial vial (little end first, of course) which on being withdrawn would produce a passage. This, like the others, began to lose its good effect, unless the glass tube was pushed higher up. However, he persisted in this mode of causing an operation until last week, when he pushed the vial too far and lost hold of it. There the bottle remained; but by and by the fellow got scared and came to me, and I could feel its little end up near his liver. With proper manipulation, and external pressure, I succeeded in pushing the bottle down the bowel, guiding the larger, rectal, end, finally extricating it, to the great relief of the stingy old fellow. He has decided to buy pills or "salts" in the future.

Success to the alkaloidal lines and THE CLINIC.

G. E. FLOWERS.

Hickory, N. C.

[Why this large number of cases of typhoid fever in children? No one can answer positively without a personal "survey" of local conditions, but I suspect the milk supply. When the disease prevails principally among the very young then the food peculiar to the young should be made to object of a searching investigation. Whatever the cause, "clean up" thoroughly around the homes of the sick, exclude flies, boil the drinking water, sterilize dejections and avoid unnecessary contact between the sick and the well. And *always* resort to prophylactic vaccination of those exposed or likely to be exposed.

That "stingy old bachelor," I fear, is a sexual pervert. Unfortunately, he had discoverd new sensations with the candle, and that led him to explore just a little too far.—ED.]

"THE MODERN HOSPITAL"

We have just received the first number of *The Modern Hospital*, which is described as "an international journal devoted to the building, equipment and administration of hospitals, sanatoriums and allied institutions, and to their medical, surgical and nursing service." The editorial staff of this new journalistic undertaking is headed by Dr. John A. Hornsby, for many years the able superintendent of the Michael Reese Hospital of Chicago. The journal is published by the Modern Hospital Publishing Company, Metropolitan Building, St. Louis; this Company being headed by our old friend Dr. Otho F. Ball, the well-known publisher of *The Interstate Medical Journal*.

The first number is beautiful to look upon and interesting to read; in fact, it is of so much interest that we hardly see how anyone who is connected in any way with hospital work can get along without it. The subscription price is $3.00 a year.

SHALL THE UNITED STATES RECOGNIZE HUERTA?

The vacillating policy at Washington with respect to Mexico has caused a great deal of surprise among foreign residents in this country. I suppose it can be explained only in one way—ignorance of the Latin-American character. We will suppose President Wilson to be honest in not recognizing the government of President Huerta, as not emanating from the people. But, as the people are at present, such a government as Huerta's is the only kind feasible for Mexico, as the Mexican people have amply proven that they are not yet apt for self-government.

Let us take a look, for instance, at this little state of Colima, with altogether an area of only 3500 square miles or thereabouts, a very rich state where property is well divided and everybody has something to live on. Even before Madero became president, the people essayed the rights of citizenship and held state elections, and Mr. Alamillo by their will became governor. This gentleman proved himself to be just and equitable, treating poor and rich alike, and during his short term of office he made some notable improvements and commenced others for the benefit of the state and its capital. But, in spite of the man's gubernatorial capacities and virtues, the people got tired of him in less than two years, and, starting an embryo revolution, kicked him out. At least that is what it amounts to, as General Huerta, to keep the revolution from spreading, had to call him to Mexico and put a military governor in his place.

The people, of course, do not like that, but Governor Jaramillo, the present incumbent—who, by the way, is a hero of the American war of '47—might perhaps not understand much about politics. But it is supposed that he understands, as a specialist of Porfirio Diaz's school, how to cure chronic and insipid turmoilitis on short notice; and, so, dissatisfied citizens smile and say they are happy. And, as a result, Colima, *á la* Jaramillo, is one of the few states that is prospering in spite of the revolution; and at present it is full of refugees from Sonora, Michoacan, Chihuahua, Morelos, and other states where people at present are enjoying freedom as they understand it, amusing themselves electing governors and kicking them out, and, incidentally, building bonfires with their neighbor's furniture, changing their solid homes into fleeting smoke and other amusements not quite so innocent.

Madero, who too late discovered his mistake in believing his countrymen fit subjects for freedom, tried to help the duly elected governors of the different states to keep their seats; a heinous crime against the constitution, that of meddling in the affairs of the sovereign states, and Congress as well as the rest of the country raised the dickens of a row. But Juarez, Lerdo, Gonzalez, and Diaz all discovered it to be an impossibility to govern Mexico according to the Mexican constitution. Either the people must change or the constitution must be changed, as they do not fit each other. Many thinkers of today are agitating this important question; but, though it be easier to change the magna charta than to change the people, nobody so far has the spirit to propose such a "sacrilegious action."

As it stands, the constitution is a dead letter, but it sounds good, too good in fact to be true. It is a beautiful and sonorous poem, capable of stirring the hearts of men, but its impressions are soon forgotten. The laws are as they should be for good and righteous people, but for a people in their infancy, with but a hazy notion abou their duties, the Mexican magna charta is far ahead of its time. It works the wrong way, by impos-

ing restrictions on the rulers and the servants of law and order, leaving the untutored savage people free to do as they please. For this reason, the president and those under him must ignore the constitution, if they will govern well.

Regarding the e ections which are to be held in October, I can not see how it is to be done. It s very foolish for the Washington officials to expect it.

How can people vote according to their conscience (granted that they have a conscience), with the polls surrounded by armed gangs of cutthroats? Or does Washington believe that, to please the hated "gringos," the wolves will change their bristles for lamb's wool?

Why, when there was some semblance of peace, during Madero's time, has it not happened that certain *jefe politicos* accused men of being bandits and had them shot, because they did not vote the tickets favored by them? The case of Misantla, Veracruz, was not an isolated one, by any means. And how easy is it to put a man who has a strong following of voters in jail until the e ections are over, coercing in the meantime his ignorant followers to vote the opposition icket!

And suppose Huerta was to get out and let the people do as they please, then what would happen? Carranza wants to be president, but he hardly can count on the support of Maytoreno and Pesqueriro or Zapata. Maytoreno and Pesqueriro consider themselves as strong as, if not stronger than, Carranza, but are pitted also against each other, owing to political jealousies. Zapata is for none of the three, and none of them are for Zapata, and the other, lesser, factions will contribute to make the situation more incongruous still. Let it be understood that there is no organized revolution, as every one of the factions in the field is contending for its own immediate ambition and does not care for each other a fig.

If Washington has really the welfare of this country at heart, it does not need to trouble about interfering, as it would be a great deal cheaper to recognize Huerta and his government—not out of love for Huerta, but as a good and sound political principle. The United States has weakened Huerta's action too much entirely by withholding recognition so long, and its present attitude has helped the revolutionists of the different factions not a little.

Mexico needs a strong and ruthless hand to reestablish peace, and for that we want Huerta. Once peace is established, it will need a strong hand to maintain it for at least three generations, time sufficient to educate the people regarding their duties. And that the people are amenable to reason when once educated, can be proven beyond a doubt. I myself used to be pessimistically inclined about it when observing the peon class in the rural districts, but the Mexican railroadmen, who are an educated class, have shown themselves in spite of prognostication to the contrary, to be able and willing workers, and far more respectful and gentlemanly than the foreigners whose places they have taken; and they stand out today as examples to their brothers and honor to their country.

A. R. HOLLMANN.

Colima, Mexico.

PHYSICIAN AND DRUGGIST

There are, indeed, many sides to the question of the dispensing physician, and in fairness we must consider them all.

Of late, a large number of bills have been introduced in the various state legislatures, as well as in Congress, which pretending to prevent the sale of narcotic drugs to addicts in reality are measures favored by the pharmacists to compel the physician to leave all dispensing to them.

Naturally such a proceeding is causing a furore among those physicians who for various good reasons, rarely from a commercial desire for gain, realize that their rights as physicians and as citizens are being impeached.

A hundred years ago, and less, the prescription-pharmacy was an absolute necessity, because the prescriptions of that time called for a host of cumbersome and raw materials and it was next to impossible for the medical attendant to dispense at the bedside.

When Samuel Hahnemann promulgated his "laws" and taught the doctrine of single remedies and small dosage, the pharmacists were active in opposition to him, in which the more narrow minded physicians readily joined. Thereupon laws were passed prohibiting physicians from dispensing.

Since those days of Hahnemann, medicine has been gradually pulling itself out of the darkness of tradition. It has advanced to a wonderful degree, until today our methods of prescribing are upon a scientific basis, our drugs are standardized and reduced to their best form and are put up in compact and handy style, and largely in accurate dosage.

We are not drug-nihilists for the reason that we do not employ a collection of crude drugs. We learn to pin our faith upon certain

remedies and then use these for all they are worth. The result of this progress in medicine is, that many physicians go to the bedside to fight, with a consequent proportionate loss to the druggist's business.

I am now going to tell you of some of the common practices of physicians who only prescribe, and of the pharmacists and of the relation subsiding between certain of these parties. You may form your own conclusions on the subject. One day, when I was in the drug business a prescription was brought in, by a lady, which read thus:

℞. Formula No. ii,-Dr. A.

Naturally I called up the doctor on the phone who then offered the explanation that at the time he saw the patient he could not determine just what medication was needed and therefore had written the prescription in the meaningless way in which it was received at our pharmacy. However, he had looked up the case as soon as the lady was gone and had prepared himself to explain to the pharmacist receiving that prescription exactly what to dispense. And so the doctor went on to dictate his order to me.

Another one of these enigmatic prescriptions encountered under similar circumstances had this appearance:

℞. Antiphlogist. No. x. Ozs. viii.

Sig. Teaspoonful t.i.d P.C. Dr. B.

A printed note in the lower left-hand corner of the prescription-blank advised the patient to take the prescription to a certain pharmacy to be filled.

To fill this prescription, it was necessary for our pharmacy to send a clerk with this prescription to that particular pharmacy and the patient had to pay us both a profit. This doctor had a large list of private formulas with that pharmacist, and I have no doubt he received a certain percentage of the profits. In fact I believe he had an interest in the business.

Nearly all the prescribing physicians advertised one pharmacy or another, but their prescriptions could be filled at any of them. They did this because they believed in the better service to be obtained in the particular pharmacy they favored.

Any prescription that came to us not plainly legible was not filled until the doubt was removed by calling the prescriber upon the telephone; and in like manner the dosage of ingredients was rectified if it seemed to us too large. You would be surprised at the number of cases in which nearly lethal doses have been prescribed either through ignorance or carelessness.

Some physicians were noted for the variety of nostrums they prescribed. I used to think what a waste of good money and time it was for such a man to go to medical college, when he might have learned to prescribe those remedies by reading the labels of a certain few exploited ones, and thus been able to cure every known as well as unknown disease—that is, if we are to believe what the labels tell us.

The physicians prescribing these patent medicines were wont to clothe them in a sort of make-believe Latin, in order to keep the patient from knowing that they were getting a proprietary article. It cost those sick people extra money for that blissful ignorance, for the druggist would change the article from its original bottle to one of the prescription-type, label it according to the physician's directions, then charge for it half as much more than it was offered to the public in its original form.

Many physicians had contracted the bad habit of using our pharmacy for a loafing-place, and there soon gained the belittling title of "doc," because of the too great familiarity engendered.

It is a fact that pharmacists assume the role of physicians, at times, and prescribe for such common ailments as headache, stomach disorders, constipation, diarrhea, minor injuries, and last, though by no means least, the all too prevalent venereal diseases.

One day I was asked by a lady customer, who was slightly under the influence of liquor, to give her some medicine to afford her relief. Her list of symptoms enumerated meant nothing to me, but, to do my duty as a drug-clerk according to the customary rules, it was up to me to sell her something before she got out of the place. So I assured her very confidently that I would help her.

I then gave her two 2-grain tablets of vegetable charcoal and a concoction of cascara with coca-cola to wash them down, and requested her to sit down a while. As the minutes passed I noticed that she was getting more and more uneasy and soon began to assure me that she felt so very much better that she must have some more of those wonderful tablets. Having had her will, she hastened away. I had made a profit for the store of about 22 cents on a 25-cent sale.

I am now looking forward expectantly to the time when the prescribing department, that is, the purely prescribing department, of the pharmacy will give way to an analyt-

ical laboratory, when the pharmacist will aid the physician in diagnosis as well as in treatment.

Wm. Rae Young.

Shelbyville, Mich.

THERAPEUTIC HINTS AND QUERIES—INFLUENZA, WHOOPING COUGH AND OTHER AILMENTS

During an epidemic of influenza through which we were passing, I found the antizymotic combination which follows very helpful: Brucine, gr. 1-128, quinine hydroferrocyanide, gr. 1-12, calcium sulphide gr. 1-6, aconitine, gr. 1-3000, this being given in connection with calcium sulphide to saturation. Of course other remedies were employed as indicated in the individual cases.

One case, with serious lung complications following in the wake, baffled me. I advised living in a tent, the patient residing in the mountains at an altitude of 7000 feet. The weather being rainy, he hesitated. Taking things into my own hands, I made a call and in a gentle way told the people that I wanted the tent, for I was going to put it up and put the patient in it. Of course, I explained all over again what it would do for him, and so the family consented.

Within one week the patient showed marked improvement, while he had been at a standstill for six weeks prior After but three weeks in the tent, he now is full recovered; and told me the other day that he never was going to sleep indoors again. Rocky Mountain air in this section is a great boon to the tuberculous. However the patient in question did not respond to the test.

In treating pertussis, what results do the "family" get? What remedies do you use? Please report all you can on the action of silver iodide; I find it to modify the course in some of my whooping-cough cases. Saturation with calcium sulphide failed to immunize, in my hands. To me this is one of the most horrible diseases of infancy.

Three cheers for the man who has said that the general practitioner is the real hero of medicine, and not the surgeon. Just recently I saw a case of severe hemorrhage. A woman had been to see me about a serious discharge and I suggested a bimanual examination, but this she deferred to some later time. I saw her again a few weeks afterward, when she claimed to be better. Then shortly after this I had to go to her home, as she had a bad hemorrhage, and at the time of my arrival she was almost bloodless.

A hurried examination revealed a pedunculated fibroid of the size of a large fist protruding from the cervix, and I advised immediate operation. The husband consented and took the woman to Butte, where a very good surgeon did the work, who heartily indorsed my diagnosis and suggestions. The operation of course was a very simple affair, surgeon's fee, $150.00. My fee, $5.00. Family very well pleased.

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What do the "family" do for club-foot? At what age do you start treatment and what material do you use for splints or braces in an infant?

A steel sound passed several times is curative in some chronic cases of gonorrhea in the male.

Tincture of iodine, locally, in ringworm, after first touching with strong carbolic acid, does the work.

I have tried out the alcohol and spirit of camphor mixture as a surgical dressing and found it fine, better than anything else so far used.

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[In his remarks about the alcohol and camphor-spirit treatment of wounds, Dr. McCann refers to the article by Dr. Beverly Robinson that appeared in this department last year, on page 765. For the benefit of recent subscribers we will say that this mode of wound disinfection was introduced by Nelaton.

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Dr. McCann's experience with calcium sulphide differs from that of many others. Perhaps he failed to push it hard enough, or neglected eliminative measures. However, it is not infallible, of course. Dr. Paul Cramer has recently been having great success with solanine in pertussis. Others should give this remedy a faithful trial.—ED.]

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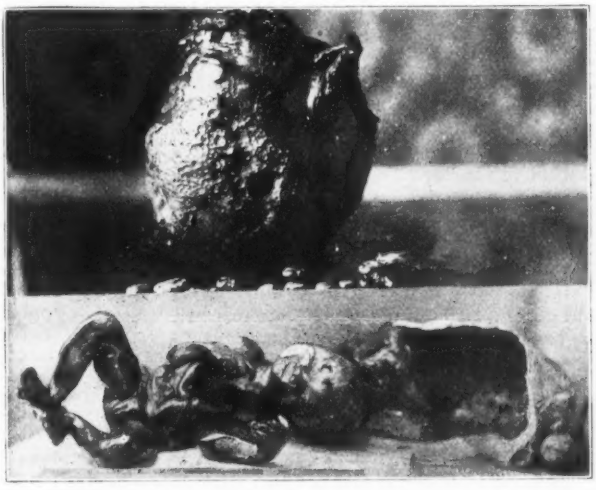
The patient was twenty-seven years old. She was married, at the age of 17, in August, 1898, and expected to become a mother in July, 1899. In March, two months before the expected happening, she was taken ill suddenly, but recovered after a period of two weeks. The expected did not happen, but the patient felt some pain, which continued up to the present time, eight years afterward. Although she was confined to her bedroom for about two weeks at the time of the expected confinement, she has, since then, enjoyed fairly good health. She was able to do her own work until a few weeks before the operation, when she was taken with much pain and suffered in many other ways, and failing rapidly.

Her recent sufferings led her to consult Dr. D. A. Parker, who called in Dr. A. J. Mayfield, and in the consultation Dr. Mayfield diagnosed it as an encysted fetus; which proved correct by the operation. The cyst, or cover, containing the child was as much as an inch in thickness in some places, while at others it was as thin as paper, and it was at one of these thin spots that it had broken through. Dr. Mayfield thinks the child would have weighed 9 or 10 pounds if it had been born at the proper time, and shows now to be well formed, weighing 8 pounds when removed.

There can be no possible doubt of the tumor having been carried since a year after her marriage to her first husband. The thickness of the cyst, the mummified condition of the child, and, besides, the appearance of the patient did not change from the time of the expected confinement, almost eight



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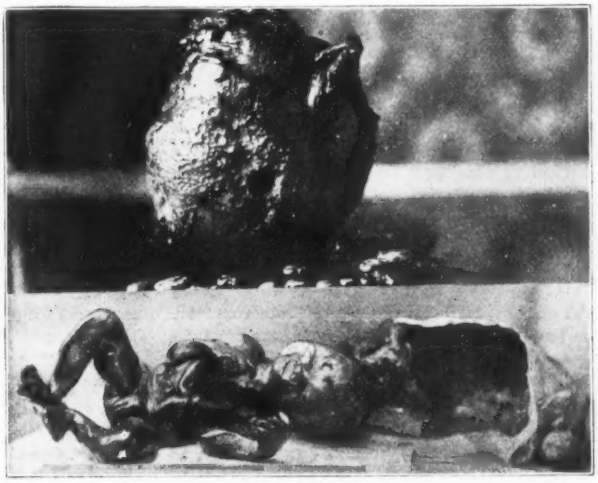

The Fetal Cyst (above) and the Mummified Child, just removed (below).

years ago, to the time of operation last Monday.

C. B. MAYFIELD.

Gilman City, Mo.

CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA

The next meeting of the Clinical Congress of the Surgeons of North America will be held in Chicago, November 10 to 15. This association was organized only three years ago, but already it has become a power in American surgery. It differs from other associations in that its work is largely practical. While a few important papers and lectures are given, the special feature of these meetings is the preparation of hundreds of surgical clinics by the best men of the profession, so that any physician attending has an opportunity to see pretty nearly every kind of operative work.

At the coming meeting of the association, the newly organized American College of Surgeons will be formally installed. If you want to get in with this organization, it will pay you to keep in touch with it.

AMEBIC DYSENTERY: CALCIUM SULPHIDE EFFECTS A CURE

I did not realize the extent of the ravages of amebic dysentery til I read the little item in *Helpful Hints*. Perhaps the recital of my own son's case may prove of interest. It was evidently sporadic, for no other physician in that part of southern Oklahoma had met with a case before; and they were of good competency.

The diagnosis was, emphatically, clear. It was an acute attack, very severe; he lost much blood, was irrational from the third day. I tried faithfully the remedies recommended in textbooks and by reliable authors including ipecac. Some recommendations seemed singularly futile, as, for instance, colonic flushings—how can injections reach the germ burrowing under the intestinal mucous lining?

The patient (age 18) was growing rapidly worse, something—something promising help—had to be done. I reasoned that calcium sulphide, having the reputation of being a reliable systemic antiseptic, especially a a germicide, might be the agent I needed. Procuring a liberal supply of trustworthy calcium sulphide tablets as quickly as the mail could bring them, I proceeded to saturate my boy with this agent. I gave him six granules (1-6 grain each,) in a capsule every hour, for the first ten doses, but then had to reduce to four. After full saturation, not such large dosage. I prescribed no other remedy.

After the lapse of twenty-four hours I thought I saw a little improvement, and in forty-eight hours I was sure this was so; and from that till recovery there was not a day of even partial relapse. The sickness lasted nearly six weeks. The calcium sulphide was used (nothing else) four weeks, with gradually decreasing dosage.

Besides its being a systemic germicide, I also had the idea that the sulphureted gases in passing through the intestinal canal would be of more use that flushing of the colon; catching, as it were, the germ front and rear, through the circulation and the tube. *Quien sabe?*

As regards emetine, its efficacy lies, possibly in its ability to unlock and stimulate the secretions—certainly a very valuable physiologic assistance. As a germicide, however, the calcium sulphide served me well in one very desperate situation.

F. O. BROADY.

Buxton, N. M.

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[This is certainly a valuable observation, and of a kind that we are most anxious to get. If calcium sulphide will cure amebic dysentery then more physicians should be using it, and we hope that many who read this article will experiment and report.

As to what emetine hydrochloride will do there is now little question. It seems to have a specific influence upon the ameba coli, very similar to that of quinine upon the hematozoon malariae. Indeed, Veddar has shown that *in vitro* it kills this organism in a 1 to 10,000 dilution; and probably a much weaker solution than this is amebacidal.

Under the circumstances, in any *pronounced* case of amebic dysentery we should advise the immediate use of emetine; but there is no objection to employing calcium sulphide conjointly to "make assurance doubly sure." In the mild cases calcium sulphide alone may suffice. There is opportunity here for a lot of beautiful clinical work.—ED.[

AN OPTIMISTIC VIEW ON ASTHMA

It is my belief, based upon quite a large experience in its treatment, that bronchial asthma is not a disease to be feared, neglected or shunned, although it is so considered and treated by great numbers of physicians. If

this sentiment were not so universal, it would not be so unfortunate for the patient. As it is, an asthmatic goes from one physician to another, attempting to find one who will become interested in his case and give him encouragement and satisfactory treatment.

This search is altogether too often in vain, and it is not surprising that sooner or later he becomes convinced that physicians have little confidence in curative remedies for his trouble. He then betakes himself to drug-stores for inhalation powders, knowing that they at least will give him temporary relief; not knowing, however, that by the use of them each attack is made more severe than the preceding one, and that eventually he is to become a wheezing, coughing, barrel-chested asthmatic.

When physicians are found who take the time and trouble to examine these patients, they generally find some irritated mucous membrane; which has an important bearing in the case, although a comparatively small number depend upon circulatory and other disturbances.

This irritation exists in the nose, throat, bronchi or gastrointestinal canal, and is not an irritation peculiar to asthmatics only. The same identical conditions, so far as the mucous membranes are concerned, frequently are seen in those who have no asthmatic difficulty whatever. Hence, it is reasonable to assume that something more is necessary to produce the disease; and that something I believe, is an impressionable and perverted nervous system, made so by being in communication with the inflamed or irritated mucous membrane. When we add to this the idiosyncrasy to certain irritants, we have all that is required to produce the dyspnea.

It seems to me that all these causes are found and are capable of proof in every asthmatic, and that we do not get the disease until we get the triple combination present. The first and last certainly are matters of common observation, for the asthmatic with nasal obstruction will practically always be improved after operative intervention, while a change of locality commonly makes the disease quiescent for a time, and sometimes permanently even if all internal causes still exist.

For treatment, when the cause is in the upper air-passages, it may be best to send the patient away from the source of irritation that is peculiar to his locality; but frequently this can not be done, and then it becomes necessary to treat existing conditions.

Those who have nose and throat trouble should have any abnormal conditions removed; those who have dyspepsia, dilated stomachs, constipation or acidemia should not only receive proper treatment, but should be as careful of their diet thereafter as should any diabetic.

Removing the patient to another locality or removing the internal irritation does not constitute complete treatment. Remedies are required to remove the bronchial cough which may not in any way be responsible for the disease but which has progressively increased as a result of the repeated paroxysmal attacks, exactly as reconstructive tonics are required to build up the nerve-centers so that they will take less notice of reflex impressions.

If only resistance to these impressions can be established by stimulant and reconstructive tonics, the pernicious habit of asthmatic paroxysms will be broken and the patient will be comparatively free as long as this resistance is maintained, but he still will be in constant danger of retrograding unless the offending cause is found and removed.

I believe the three causes heretofore mentioned are active in producing asthma and that the trouble will not usually be produced by any two without the presence of the third. For many years I have recognized this triple combination and have formulated my treatment with the idea of removing at least one of the causes. And my results have been abundantly satisfactory.

F. A. SOUTHWICK.

Stevens Point, Wis.

HINTS REGARDING ASTHMA

Bronchial asthma, distinct from other dyspneas, is purely a neuropathic affection without any appreciable lesion occurring in the otherwise vigorous and healthy. The susceptibility is inborn, manifesting itself in later life when the stomach deals with coarser foods the imperfect and difficult digestion of which frequently becomes the underlying factor, producing irritation that reflexly expresses itself in a paroxysm of asthma.

This condition, of course, obtains only in the susceptible and may not occur in a suitable environment, and, futhermore, may require other factors at various intervals to contribute to its excitation. Where attacks have been frequent, their occurrence has been arrested by the appearance of an attack of lumbago, albeit complicated with bronchitis; the irritation apparently being trans-

ferred to the muscles. Low diet, not medication, contributed to the result. Did you ever know a doctor who took his own medicine.

Bronchial congestion, with exudation of mucus, lead up to a spasm of the muscular layers of the bronchioles, so constricting their lumen as to produce the obstructive dyspnea forming the clinical picture of asthma. Recurrences are more frequent and persistent in the presence to an acute bronchitis, although the chronic form by depletion and lowering vitality operates conversely.

Bronchial asthma and robust health form a twin alliance! The vaunted cures I ween are myths. Asthma owing to nasal disease is amendable to curative treatment, Laparotomy with mutilations and adjustments of a female pelvic organs, which was promised to afford relief, proved a flat failure. Sure!

Pure air (night and day), eliminants, light digestible food, the fast full meal not later than 2 p. m., the avoidance of air-borne irritants, of pollen toxin, of chemical fumes, dust, irritating smoke and odors and of excitants that are myriad, even north winds, form the most potent prophylactics extant. Easy!

Antispasmodics abort the spasms—to wit: atropine, apomorphine (combined with strychnine), lobeline sulphate, hyoscyamine, and emetine; each hypodermic dose of the alkaloids being combined if indicated with nitroglycerin, and strychnine till effect. One dose may be sufficient. Leave morphine, if not adrenalin, in its own tubes. If acute catarrhal conditions complicate, have resort to potassium iodide and ammonium carbonate or chloride, or calx iodata; also emetine. Continue with hyoscyamine and lobeline, if required.

Aspidospermine and other remedies recently extolled I have yet to try, but lest ye forget the slogan, "Clean out and keep Clean," your efforts may be vain! With what? Saline laxative, of course, and calomel, podophyllin and bilein.

Freshly powdered stramonium leaves and powdered niter, burnt in a small room and the smoke inhaled, often is effective. One-fourth of powdered cubebs, if not too strongly impregnated with its oil, may be added. For years, without any other remedy but tobacco smoke, this was my sheet-anchor. Every case has its own law, and for nigh half a century I found my law inexorable, and may yet learn it is not anothers.

MORRIS HARVEY.

Fruitvale, Calif.

[Dr. Harvey's suggestions are excellent. Who can improve upon them?—ED.]

APOMORPHINE IN CHOLERA MORBUS

Being called to see a man, 50 years of age, I found him very much nauseated, and vomiting and purging at intervals of twenty or thirty minutes; also complaining of cramps in the stomach, the pain extending down his legs.

I prescribed small doses of calomel and bismuth subnitrate every hour till the actions changed. I also gave a preliminary hyoscine, morphine and cactoid tablet hypodermically. A few minutes after administering this latter the patient said, "Doctor, I feel awful sick." Something in the situation caused me to look again, and discovered I had given him 1-10 grain apomorphine. The patient made a few attempts at vomiting, but within an hour turned over and went to sleep, and was well in a day or two.

J. J. CHAPMAN.

Duncan, Okla.

UTERINE BLEEDING FROM PLACENTA PRÆVIA

Tamponage for uterine hemorrhage due to placenta prævia is condemned by L. Ledigmann (*Fortschr. d. Med.*, 1913, p. 91, through *Zentralbl. f. d. Ges. Gynaekol.*, 1913, p. 103) because of the possibility of infection. Instead, he recommends, as the simplest measure, tearing of the amniotic sac and combined version according to Braxton-Hicks. When technically this is impracticable, as also in absolute placenta prævia, he makes use of the metreurynter, that is, the inflatable rubber sac. For obstinate postpartum hemorrhages, he has had good results, latterly, from secacornin and pituitrin.

ECHINACEA IN SEPTIC CONDITIONS

In your editorial in the August number, you ask for a report on echinacea by those who have used it. I have been employing echinacea, in fluid-extract and tablet form in septic conditions, with excellent results, including septic conditions following confinement and septic conditions following other local infections.

Only the past week a boy of ten years was brought to me, who had a thorn in his toe, a bright-red streak extending from the toe to his knees, with "kernels" in the corresponding groin. I removed the thorn, instructed

the parents to apply a flaxseed poultice to the toe and put him to bed. I gave him calomel, and podophyllin, in small doses every hour for four doses, to be followed by magnesium sulphate two hours after the last dose. Also, two tablets of 1-2 grain each of echinacoid every hour.

I saw the patient next morning. The red streak had almost faded away and the nodules in the groins were diminished in size and tenderness. I carry a goodly supply of echinacoid in my case and when I get a case of sepsis from any cause I give it to saturation, along with the clean-out and clean-up treatment.

Success to CLINICAL MEDICINE.

WARREN C. DAVIDSON.

Sedgwick, Colo.

CAN YOU LIVE ON THREE HUNDRED DOLLARS A YEAR?

Your leading August editorial on "Getting Down to Business" reads to me like a fairy tale, and, as you tell us that only three doctors reported taking in less than $1000 per year, perhaps my story will interest you as well as some of your readers.

I was graduated from the University of Pennsylvania in 1868. I was hospital interne and dispenser until the fall of 1870, when I was appointed for four years to the Santee Indian Agency in Nebraska, at $1000 per year. I took government land and built a home with my savings, moving there in 1875. My living was derived from the farm, for drouth, grasshoppers, and the recent settlers starting out on new farms made cash in the country a rare commodity and life strenuous.

My income from practice, compared with that of the parson, was $150 as against $250. In 1888, my collections reached $335; in 1890, $385; in 1894, they went down to $216. In January, 1900, I moved to Virginia, leaving my present home, to escape the rigorous winters. There, although I was kept as busy as a new broom, I collected just $61.42 during the year and spent $75.00 per month to live, which exhausted my little surplus. In 1901, I collected $213; in 1902, $444; in 1904, $635—the best since leaving the government job. Since then it has been as low as $438. I have always owned my home and kept a cow and horse. I was always economical and knew the value of money.

I often wondered how other doctors managed to smoke cigars, live high and be sporty. I raised a family of eight children, who always went in the best company and dressed becomingly. I never had the trick of keeping patients in bed. My practice was mostly in the office, always dispensing the remedies, and got from fifty cents to one dollar as my fee. In all my years of practice I have had but three cases that brought $100 each. They were old people, whom I kept alive beyond their time. My pneumonia cases are always aborted, my typhoid cases never go over fourteen days, and, if sent for soon enough, never over four or five days.

How can I make money under such circumstances? I will soon be 67 years old. My children are all married, but one, and doing well. This month, August 1 to 20, I took in just $3.00, and had twelve in the family to feed. We had plenty to eat, and all enjoyed themselves, and, yet, I am not owing a store bill. How is that for financing?

GEORGE ROBERTS.

Lincoln, Va.

MISTER FLY

After thousands of years, the World has woke up to the fact that the common housefly is a terrible public enemy! According to modern reports, he is man's worst enemy. He is a dark-browed, low-browed or any other kind of a "browed" assassinator. He lieth in wait for *you* his common enemy. With studied cunning and malevolent joy he abideth his time when in the midnight of tragic gloom he can "run you home, under the fifth rib." Such is the modern theory, and warfare has been declared against this little homely visitant.

For ages upon ages Mr. Fly, and his little enterprising wife, abided among us. Away down yonder in Egypt, centuries before the Master was born, this little pest was known among the sons of men. He had tremendous energies there. In Greece; in more modern Rome, "where Ægean waves and Tiber's swirling eddies" were known to men, has this little past-master of fifth been known.

But here, in this modern age, this twentieth century of enlightened learning, there has been no voice that lifted itself up in charity for little Mr. Fly. The slogan, "swat the fly," has gone from shore to shore, from ocean to ocean; and there have been none to lift up their voices in praise of the work that he has done or accord him a place in the economy of life. "Swat the fly," and still, "swat the fly" is the drearsome dole heard from hill to hill and from vale to vale.

Now let's take a cursory glance into all this recent fadistic cry about swatting the fly, etcetera, and try to get an understanding as to what there really is in it.

I want to premise by saying that there is, not, or ought not to be, any excuse for the fly's existence; but, since he is here, he is a distinct agency for good. Had you ever thought of that? Do you stop to consider that every and anything on this earth, in the economy of God's providence, is *not* purposeless?

What, then, say you, can be the possible purpose of the house-fly? Listen. This atmosphere we breathe is charged, and surcharged, with all the filthy miasmic vapors accruing from filth and decay. Mr. Fly is a scavenger—he is born of filth, and therefore, 'tis his business to revel in it. To gather it up in concrete form, as it were, this miasmic putrid filth afloat in the invisible air and consign it back to dusty nothingness! The fly is the universal scavenger. The thing is not so much to "swat the fly," but to "swat" the conditions that make his existence necessary or possible.

F. B. CULLENS.

Ozark, Ala.

SCHOOL FOR HEALTH-OFFICERS CONDUCTED BY HARVARD UNIVERSITY AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Beginning this fall, Harvard University and the Massachusetts Institute of Technology are to maintain, in cooperation, a school for public-health officers. The facilities of both institutions are to be available to students in the School and the Certificate of Public Health (C. P. H.) is to be signed both by President Lowell and President Maclaurin.

The object of this School is, to prepare young men for public-health work, and, especially, to fit them to occupy administrative and executive positions, such as those of health-officers or members of boards of health, as well as secretaries, agents, and inspectors of health-organizations.

It is recognized that the requirements for public-health service are broad and complicated, and that the country needs leaders in every community, fitted to guide and instruct the people on all questions relating to the public-health. To this end, the instruction of the new school will be on the broadest lines. It will be given by lectures, laboratory work, and other forms of instruction offered by both institutions, and also by special instructors from national, state, and local health-agencies.

The requirements for admission are such that graduates of colleges or technical and scientific schools who have received adequate instruction in physics, chemistry, biology, and French or German may be admitted to the School. The medical degree is not in any way a prerequisite for admission, although the Administrative Board strongly urges men who intend to specialize in public-health work to take the degree of M. D. before they become members of the School for Health-Officers.

The Administrative Board, which will conduct the new school, is composed of Professor William T. Sedgwick, of the Massachusetts Institute of Technology; Professor Milton J. Rosenau, of Harvard; and Professor George C. Whipple, of Harvard. Professor Rosenau has the title of Director, and the work of the school will be under his immediate supervision.

FEWER PHYSICIANS NOW

One of our correspondents sent us the following newspaper clipping, which is of interest.

"The number of physicians and especially women physicians is decreasing rapidly each year. The explanation given is that the rapid advances in medical science and the skill of doctors is diminishing the amount of sickness. Persons are seeking other fields.

"The *Journal of the American Medical Association* says: 'The total number of medical students in the United States for the year ending June, 1911, was 19,786, a decrease of 1,740 below 1910, a decrease of 2,359 below 1909, a decrease of 2,816 below 1908, and a decrease of 8,356 below 1904. Of the total number 18,414 were attending the colleges of regular or allopathic medicine. 890 the homeopathic; 433 the eclectic and 49 the physio-medical. The latter college went out of existence during the year 1911.' "

JUST AMONG FRIENDS

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

IT is worthy of notice here that many young women are very subject to pain in the side about the middle of the false ribs. This fact commonly is connected with some derangement in the health, with poor blood, and sometimes with a more or less lateral curvature of the spine. Depleting measures by no means are proper in this affection, which is most certainly removed by those measures that tend to invigorate the system, and establish the general health.

Sometimes these pains are confined to the region of the heart, but frequently they extend concomitantly or vicariously over a greater or less portion of the lungs and stomach. Sometimes they exist simultaneously in the superficial nerves of the neck, and extend along the tract of the branches supplied by these to the anterior parts of the chest.

Still more often at the very time they are felt most severely in the heart, they shoot with corresponding violence along the nerve of the armpit, and more particularly along the nerve of the arm to the elbow, sometimes even as far as the fingers, then simulating the organic affection called breast-pang or angina pectoris. It is of consequence to observe that this affection sometimes so strongly resembles the organic disease called angina pectoris as to require the aid and exercise of considerable judgment to distinguish one from the other. This latter fact should inspire the victim of angina with hope and induce calmness and composure, at the same time leading the medical attendant to offer his opinion cautiously and with some reservation in the majority of instances. Neuralgia is met with much more frequently in some years than in others, and it seems that the prevalent type of disease influence its development.

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As to treatment, generally speaking, whatever has the greatest effect toward invigorating the system and restoring all the functions of the body to a state of healthy action will be most uniformly of the greatest service in the treatment of neuralgia.

Among the drugs commonly employed for the relief of these conditions, we have various combinations of the coal-tar products (antipyrin, phenacetin, acetanilid) with the bromides and caffeine; while among the older drugs of well-known reputation aconitine, gelseminine, and cannabis indica, next to the coal-tar products, are greater in their ability to relieve neuralgic pain than any other, whether the neuralgia be mild in character or as severe as that met with in migraine.

Then, too, it must not be forgotten that in many of the cases of neuralgia depending upon poor circulation and nervous exhaustion full doses of strychnine will produce valuable results, although that measure cannot be relied upon to be of any permanent advantage when discontinued from other supporting treatment.

Cicutine is another valuable drug in the neuralgia affecting chlorotic girls. Gelseminine is especially valuable in congestive neuralgia, while in diathetic and intercostal neuralgia of exhaustion, both strychnine and atropine are valuable. Ovarian neuralgia usually yields to gelseminine, atropine or macrotin. Visceral neuralgia also will yield to these drugs; but, if the trouble seems to be in the rectum, esculin acts very well, indeed. Ocular neuralgia yields temporarily to physostigmine or hyoscyamine, although, if the neuralgia results from some eye-strain capable of being corrected, an oculist should be consulted.

A combination of remedies that without doubt is of much value in various neuralgias depending upon malarial intoxication, and which also does good in neuralgic pains not rising from that cause, is a combination of a few grains of quinine with a minute dose of morphine; the only objections being that the patient is in danger of becoming addicted to morphine.

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We have another drug that undoubtedly is of very great value in certain forms of neuralgic pains, particularly those in the head;

namely, chloral and butyl-chloral, the latter drug being especially valuable in facial neuralgia and neuralgia from carious teeth. The ordinary hydrate often proves of singular service where other remedies have failed. It is a noteworthy fact though, that in reflex dental neuralgia chloral hydrate seems to be of less value than in other forms of neuralgic pain affecting the branches of the fifth nerve, being practically useless for stopping toothache. One additional advantage of this drug is, that it causes a tendency to sleep, which is beneficial in many instances.

In all persons having atheromatous blood-vessels and high arterial tension who suffer from violent neuralgic pain affecting the fifth nerve, very great good can often be accomplished with full doses of nitroglycerin administered simultaneously with full doses of strychnine.

In addition to various measures enumerated local freezing of the tissues surrounding the superficial nerve (by means of a fine spray of ether or of ethyl chloride will be efficacious. So also, the use of ice and salt is not to be forgotten, while in other instances a high degree of heat, locally applied by means of a big salt-bag or other warm object will relieve.

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In neuralgic pains of deep-seated nerves, massage, in the neighborhood of the nerve and over its course, with a round glass rod which will dip deeply down into the tissues, often is very useful, particularly if an ointment containing menthol is smeared over the part, to lubricate the skin and exercise the benumbing and counterirritant influence, of this derivative from peppermint oil; and in still other cases, a continuous galvanic current of electricity will give great relief.

I wish to remind the reader that many cases of neuralgia are due to toxemia of some sort or another. Then, at times, there will be a uricacidemia, the overcoming of which will cause the neuralgia to disappear. The urine should always be examined. Free elimination by skin, bowels, and kidneys should be maintained. Many victims of obstinate neuralgia can be entirely cured by cleaning out their bowels and rendering their blood more alkaline, overcoming acidemia by means of saline laxatives and alkalis.

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Spend years searching for a woman you won't get tired of, and she will be the first of the lot to get tired of you.

Marriage with all its drawbacks has its merits. It's something new for single men to try, it's sanctioned by the most respectable, and if you can't afford to pay alimony it's easy enough to quit.

When a man wakes up to what married bliss is costing him, his old club bills must seem like canal-boats in a cup-race.

—

Scowl and frown every now and then, for nothing has less value than the smile of a man who always grins.

Too much thinking leads to worry; too much planning ends in disappointment; too much ambition destroys the last hope of happiness.

Happiness is most easily attained by being contented with one's surroundings; but to be contented with most people's surroundings would require a degree of complacency that would reflect discredit on a hog.

A man might as well talk of going on his honeymoon alone as to hope to accomplish any good by worrying.

People who make doormats of themselves must expect to have feet wiped on them.

—

The reason why most people are willing in the end to admit their life a failure is, because their ideals were too lofty in the beginning. If we could only start out with the understanding that a man is a twolegged beast, we would save a lot of time and have a heap more fun.

An electric fan will buzz away all day and blow off a lot of wind, but it never says anything.

The strenuous life may be an excellent policy for some, but the really great man does not have to rush about and fume to accomplish things. Most strenuous men, as a rule, are like feeble old switch-engines that puff up and down all day doing nothing but little things.

When you have the blues remember that, while you may not feel any older than you did yesterday, you are twenty-four hours nearer the grave.

When a confiding friend sneaks up to you on tiptoes and draws you away from a crowd cautiously to whisper a secret in your ear, and then begs you not to repeat it to a soul, you can be perfectly certain that everyone in the party has heard it—or will in a few minutes.

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Those who start out being too independent usually end up with being completely dependent.

Worry is fear, and fear is an admission of inferiority.

The best way to brighten your life is to try to brighten someone else's.

You know it is not what you know you know, but what others think you know, that counts.

The way to find time to do everything is never to let time find you doing nothing.

Don't aim too high, and your hopes won't have so far to fall.

The way to do a thing is, to *do* it.

Dissect life to the bone, and you may prove to yourself that it's not worth while—but here we are, and so, why not make the best of it?

A rich man has a difficult task avoiding notoriety; but the ordinary mortal who enjoys seeing his name appear extensively in type must commit some awful crime, save a millionaire's life or recommend patent medicines.

Friends are like titled husbands, pedigreed dogs or racing automobiles—easy to get if you have enough money.

A tip is either a bribe to make a waiter give you something you are not entitled to, or blackmail to keep him from insulting you for receiving what you order. There's no use kicking. Either pay or stay out—it's part of the game.

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Poverty is not without its reward. The man who has to shine his own shoes need never fear dyspepsia nor a breach-of-promise suit.

There is only one thing worse than dishonesty—incompetence.

The difference between a natural and a cultivated liar is, that the former believes his own lies.

Life is a good deal like a seesaw, and it pays to be decent to the fellow who is down, for he may be up tomorrow.

There are lots of blanks to be drawn; so, if you get one, don't be disgruntled—it won't do a bit of good. Just take what comes and smile.

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Men hate to be thought sentimental, but the gruffest have a lock of hair, a lace handkerchief, or a faded photograph hid away somewhere.

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A good fellow is like a big-hearted ass. When he wants half done for himself that he gladly does for others he gets nothing.

Geniuses may go about unshorn, but don't try to measure all men's brains by the length of their hair.

The hardest work an energetic man can do is to loaf.

A man is worth what he gets, for the simple but very excellent, reason that he does get it.

Conservative men are like paper-weights—they hold things down, but seldom move.

If you want to end a quarrel with a woman, don't try to convince her that she was wrong, Just send her a little present and shut up.

—

There is nothing more admirable in the abstract than truthfulness; but the man who always insists upon telling the whole truth is as much of a nusiance as a woman in a fishing party

Some women talk a lot about wanting their own way, but with most of them this is a reflection on their masters. Nearly every woman prefers to be bossed. It all depends upon the way it is done.

If you want to flatter a woman, pour your sweet things into her own little ear; but if you want to jolly a man, make your complimentary remarks in the hearing of a big-mouthed friend of his.

When a man touches you for a loan, tell him you are broke. It may be a lie, and he knows it, but he can't say so without admitting that you doubt his ability or willingness to repay.

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BETTER HAVE YOUR FAMILY PHYSICIAN

Just keep the heart a-beatin' warm;
Be kind to every feller;
Look for the rainbow in the storm,
But—carry yer umbreller!
Be brave to battle with the strife;
Be true when people doubt you;
Don't think that money's all in life,
But—carry some about you!
An' when it's time to shuffle off,
An' you have done yer mission,
Just put yer trust in Providence,
An' call a good physician!

—*Atlanta Constitution.*

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Severe pain in or about the heart, with paroxysmal sinking-spells and anxiety, if coupled with a muffled sound at the base of the heart or with the aortic sound more pronounced than the pulmonary, is apt to be evidence of true angina pectoris due to organic disease, atheromatous deposits and valvular incompetency. Superficial varicose veins on the abdomen are evidence of deep venous obstruction and may indicate cirrhosis of the liver. A hard, rigid, inelastic femoral artery, the vessel feeling like a small gas-pipe, suggests that gangrene of the foot or leg may be impending in the near future. Continuous headache, either deeply seated in one spot or referred to the whole cranium, is probably evidence of organic diseases.

AMONG the BOOKS

DAVIS: "SKIN DISEASES"

Skin Diseases in General Practice: Their Recognition and Treatment. By Haldin Davis, M. B., B. Ch., B. A. London: Henry Frowde, and Hodder & Stoughton. Price $3.75.

If the average physician in practice knows as little about skin diseases as the reviewer, he will cordially welcome any contribution to medical literature that affords him any genuine assistance in the recognition and treatment of this obstinate and puzzling class of troubles.

We do not know that there is anything new or startling about this book of Haldin Davis', but it is the work of a man who has had long and wide experience in handling diseases of the skin, and, so, it represents an intimate knowledge of the practical end of the subject. Besides, as we have frequently risen to remark, and our language is plain, the Englishman has the knack, more than any other nationality, of saying what he has to say, plainly and helpfully. He is a born teacher and knows how to impart what he knows; more than that, he knows how to impart just those particular parts of his knowledge that are practical and useful. This is the feature in which Dr. Davis' book excels.

Especially illuminating are the differentiations laid down between the various diseases that cause widespread eruption, and which are usually such a bugaboo to the ordinary diagnostician. With this book at hand, we should venture to make a diagnosis ourselves. A higher compliment we could hardly pay it.

LINDSAY: "GOUT"

Gout: Its Etiology, Pathology and Treatment. By James Lindsay, M. D., London: Henry Frowde, and Hodder & Stoughton. 1913. Price $1.50.

The problem of gout, like the poor, we have with us always. And, what is more to the point, the disease itself and the gouty patient are ever present actualities. No disease in the catalog perhaps, has received more attention in practice and in literature; yet, little in the way of definite knowledge seems to have been added to us since medieval times. The fact is, we know but little more about it, if any, than Sydenham wrote his classical treatise.

Only in very recent years has there been a suggestion of innovation in our conception of the gouty process; namely, a disposition to bring its etiology within the all-inclusive pale of microorganic infection. Of this, the author takes due cognizance. "The present-day attitude of observers," he says, "is, that gout is due to certain toxins circulating in the blood and present in the body-fluids, which are the outcome of certain faults in metabolism originating in an altered condition of the gastrointestinal processes.

It has been demonstrated that there are enormous numbers of streptococci in the large intestine, largely outnumbering the colon bacilli. But this aspect of the disease is yet in its infancy—and perhaps a stillborn infancy—and does not lend itself to any very extensive elaboration. For the most part Dr. Lindsay's book is simply a comprehensive presentation of the clinical status of this very obscure and obstinate pathologic condition.

POLAK: "OBSTETRICS"

Manual of Obstetrics. By John Osborn Polak, N. Sc., M. D., With 3 color plates and 119 illustrations in the text. New York: D. Appleton & Co. 1913. Price $3.00.

One would think that there were textbooks and manuals aplenty on the subject of obstetrics, especially considering the fact that obstetrics, in itself, has not undergone any very radical changes or improvements during the past twenty years. Really, almost everything that has happened in the way of obstetrical progress in that period has been a reflection of the progress made in surgery translated into the field of obstetrics and consists in the application of surgical methods to the technic of obstetrics.

With this understanding, the student and practitioner of obstetrics can get almost as much information concerning its actual mech-

anism and conduct out of the older standard works as from the more modern textbooks. Certainly, there is no crying need for additions to obstetrical literature, so far as the practical side of the subject is concerned. The only real *raison d'être* or merit in the manual under review, so far as we can see, is its brevity.

As in every other branch of medicine at the present time, there is a tendency to make obstetrical textbooks too long-drawn out, and a manual which compresses the entire subject into four hundred duodecimo pages will doubtless be welcomed by those who appreciate terseness and condensation.

BOOKS RECEIVED

Practical Cystoscopy; and the Diagnosis of Surgical Diseases of the Kidneys and Urinary Bladder. By Paul M. Pilcher, A. M., M. D. With 233 illustrations, 29 in colors. Philadelphia: The W. B. Saunders Company. 1911. Price $5.50.

Essays on Genitourinary Subjects. By J. Bayard Clark, M. D. New York: William Wood & Co. 1912. Price $1.25.

Diseases of the Genitourinary Organs and the Kidney. By Robert Holmes Greene, A. M., M. D., and Harlow Brooks, M. D. Third edition, revised and enlarged. With 339 illustrations. Philadelphia: The W. B. Saunders Company. 1912. Price $5.00.

Urology: the Diseases of the Urinary Tract in Men and Women. A book for practitioners and students. By Ramon Guiteras, M. D. Volumes I and II. New York: D. Appleton & Co. 1912. Price $12.00.

KNEELAND: "COMMERCIALIZED PROSTITUTION"

Commercialized Prostitution in New York City. By George J. Kneeland. With a supplementary chapter by Katherine Bement Davis, and an introduction by John D. Rockefeller Jr. New York: The Century Company. 1913.

This is the first of a series of four reports (the other three yet to be issued) by the Bureau of Social Hygiene of New York, instituted through the agency of John D. Rockefeller Jr., for the purpose of making searching inquiry into the causes and conditions of vice in that city. It is a most instructive and suggestive report—an improvement, we think upon the one issued by the Chicago Vice Commission, in that it omits a great deal of the circumstantial detail included by the latter body, and furnishes a somewhat clearer and more conclusive interpretation of its data; not that the New York bureau is lacking in circumstantial details; there is enough, and to spare upon its records, which anyone may see who is legitimately interested.

But, after all, the real duty of the Bureau is, not to display the detail to us *in extenso*, but to summarize and interpret it for us, and the New York investigators have well understood their part.

The net showing of the report is, that the whole vice situation represents the social interplay between all that is weak and abandoned in woman amd all that is sensual and lawless in man, of which a vicious commercialism has taken damnable advantage for its own unholy profit. The remedy is, of course, complex and difficult. But the report contains some timely and sensible suggestions in that direction, too, which will be of incalculable value to those who are actively engaged in fighting the evil.

KRAUSE: "NORMAL HISTOLOGY"

A Course in Normal Histology. A Guide to Practical Instruction in Histology and Microscopic Anatomy. By Rudolph Krause, A. O. Professor of Anatomy at the University of Berlin. Translated by Phillip J. R. Schmahl, M. D., New York. With 30 illustrations and 208 colored plates. Part II. New York: The Rebman Company. 1913. Price $5.50.

The Rebman Company is giving us an excellent series of scientific textbooks translated from European texts, of which this by Krause is one of the best examples. It is fitting that a teaching book on Histology should excel in its illustrations, since it is only through the visual faculty that histology can be properly imparted and acquired. And this book does excel in its illustrations; containing, as it does, some of the finest pictorial representations of tissue-structures that it has ever been our pleasure to see.

Really, except for the practical advantage that always accrues from a working-knowledge of the microscope and its adjustment, we cannot see that the actual slides have "anything on" these colored pictures. And, indeed, a great many of them represent preparations that no ordinary student will ever make in the original. And, then, for the many who have neither the time nor the opportunity to prepare their own slides at all,

this beautiful series of plates will serve as a splendid course in microscopic histology.

We desire to compliment The Rebman Company upon the production of this excellent volume, and to congratulate all who, at relatively so low a cost, can own and avail themselves of a work of science and art such as this.

WOOD: "A TREATISE ON PELLAGRA FOR THE GENERAL PRACTITIONER"

A Treatise on Pellagra for the General Practitioner. By Edward Jenner Wood, S. B., M. D., Chairman of the Pellagra Commission, North Carolina Board of Health. With 38 illustrations in the text. New York York and London: D. Appleton & Co. 1912. Price $4.00.

Pellagra, which, so far as this country is concerned, is a disease of comparatively recent study, has had a rapid and checkered history. The oldest conception (and the disease itself appears to be of somewhat ancient lineage) was that of a constitutional disorder or dyscrasia, similar in its etiology and pathology to scurvy—a conception which shared the field with another view, namely, that it resembled leprosy in its causes and character. When the disease began to obtrude itself upon the attention of modern medical men, it was first classified among diseases of the nervous system, and assigned to the department of the neurologist, who, it must be confessed, succeeded in making very little out of it. Gradually, under the influence of special research, the truth began to impress itself upon careful investigators that the nervous manifestations were mere incidents in its clinical course, and the indicator slowly swung round again to the older concept. It is now pretty well agreed that the disease is a nutritional, metabolic disorder, due to some profound disturbance of the body chemistry; but of the exact nature of the disturbance we are still in ignorance.

Dr. Wood, the author of the present book, was one of those who took an active part in running down the true habitat and nature of pellagra. All that he has to say upon the subject, therefore, has a peculiarly authentic value. His book is a very thorough presentation of pellagra, both from the academic and from the clinical standpoint.

One of the most notable features of our later research in the matter is the extension of the geographical distribution of the disease. It can no longer be regarded as confined to a few isolated southern States. While it prevails in the South to a greater extent than in the North, yet we must accustom ourselves to the truth that it has all places and seasons for its own. Nor can it any longer be attributed to musty corn as a fundamental *casus morbi*, whatever incidental part musty corn may play in its etiology. A further truth is very evident from Dr. Wood's able presentation of the subject, namely, that there is still a wide field of investigation to be covered before anything like definite or decisive knowledge can be assumed.

REED: "ORIGIN AND DETERMINATION OF SEX"

Sex: Its Origin and Determination. A Study of the Influence of the Metabolic Cycle on Sex. By Thomas E. Reed, M. D., Middleton, Ohio. New York: The Rebman Company. 1913. Price $3.00.

It seems, at first blush, like a very large book and a great deal to say about a subject of which practically nothing is known. But, when one comes to think about it, that of course is just the very kind of topic on which endless volumes can be written without overstepping the possibilities of the matter.

Dr. Reed has given us a very thorough presentation of the main questions at issues, an equally comprehensive summary of the principal data, and a most judicial estimate of the comparative weight and significance of the data. Furthermore, by means of the extensive and well-chosen references which point his various assertions and contentions, the author has shown us the way to an intelligent excursion through the entire domain of sex-biology, if we are sufficiently interested to take advantage of it. It is, in fact, a decidedly able work, and forms a valuable contribution to the literature of the subject.

In its present status, however, the subject itself is one that has more academic than practical interest for the physician, and the author and publisher must not be surprised if the sale of the book is small, at least among medical men. One of its chapters is of intense and practical significance to the doctor —that upon the metabolic cycle in labor. Altogether too little attention is being paid to biology in current obstetrics; and every obstetrician (which is equivalent to saying every physician) ought to know what is told in this chapter, even though he pass by everything else in the book. It is worth his while buying the book for that chapter alone.

CONDENSED QUERIES ANSWERED

PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5929.—"Cancerous Womb." Referring to the query submitted by V. S. B., of Connecticut, in the August CLINIC (p. 705), regarding a woman of 80 who has bleeding and a fetid discharge from the wound, I wish to give briefly a few words on my experience in cases of this nature.

Judging from the short history printed, the case seems to border on malignancy, and your suggestions for treatment may do well. However, I would suggest that the mixture named be reenforced by ichthyol (5 percent), or, to use the following: Iodine, grs. 30; phenol (95 percent), dr. 1; boroglyceride, drs. 2; ichthyol, dr. 1; glycerin, ozs. 4.

Now as to the treatment. Cleanse the ulceration with pledgets of cotton, saturated with 2 percent carbolic-acid solution, holding it with the dressing-forceps. Then apply equal parts of hydrogen dioxide solution with warm water, also by means of pledgets of cotton; this dioxide mixture being left on until the bleeding stops. Then apply a medicated tampon to the cervix or the ulcer, whichever it be or wherever located. It will do well in the cul-de-sac, but should be placed carefully, so that the cervix will lie in it as a baby's head lies on a feather pillow. This tampon, before placing, is partially saturated in the boroglyceride-ichthyol solution above described.

The cervix and the walls of the vagina may be painted with a 10-percent solution of tincture of iodine in glycerin before placing the tampon.

The tampon is made of loosely folded cotton, and should measure $2\times2\times\frac{1}{2}$ inches, around which a string is tied with two 5-inch ends, and tied at the end, to form a loop.

The woman is instructed to extract the tampon by introducing her finger through the loop and withdraw the tampon after six to eight hours, as the case may be, then she is to take a douche of 2 quarts of hot water, to which she may add 1-2 or 1 ounce of table-salt. While taking the douche she should lie on her back, with the buttocks over the douche-pan. The fountain should not hang higher than 18 inches. Women must be instructed minutely how to do these things, otherwise most of them will take the douche sitting over a slop-jar. The patient should also be instructed to wear a pad, because there will be considerable fluid drawn by the ichthyol-glycerin tampon.

The dioxide solution is of more value than most physicians would give it credit. If properly applied, it will not only clean, but cause the unhealthy tissue to shrink and heal. This treatment outlined may be repeated every day, but I find that every other day will do and yield good results, provided the patient takes one or two douches on the intervening days.

If there is a foul discharge from the womb, that may be treated by irrigating with warm water containing 2 percent of carbolic acid, using the return-flow catheter; and this may be supplemented with a cotton cone, on the applicator, saturated in a 10-percent solution of tincture of iodine in glycerin.

R. WILLMAN.

St. Joseph, Mo.

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ANSWER TO QUERY 5908.—"Tinea Circinata, or Ringworm." In the August number, in reply to T. D. F. (Query 5908, May, p. 461), G. D. S recommends "sweat of steel" as a sure cure for ringworm. I have used the same substance for many years, and with uniform success; however, I believe I can suggest a better method for obtaining the oil than that by burning rags on an ax. This is my way:

Take a large sheet of writing-paper (foolscap), roll it up into funnel shape, using two

pins to fasten it. Cut the mouth of the funnel even and then stand the funnel upside down on the back of a plate. Now set the apex on fire and let the funnel burn evenly down to the plate. After blowing off the ashes you will find a yellow oil collected on the plate. This oil is applied all over the diseased area. You want to be sure to burn enough paper funnels to produce oil sufficient for this purpose. As a rule one application does the work. I do not know what its composition is, but suppose the oil contains some form of arsenic, and a little creosote produced from the burning paper and condensed inside of the cone. L. L. N.

——, Tenn.

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[Thank you for calling our attention to your method of obtaining this "oil of steel," and adding your testimony of its efficacy. Your explanation seems reasonable. Most paper nowadays is made of wood pulp, and from this, as the products of destructive distillation (combustion), there may result pyroligneous (and, possibly, acetic) acid, phenols, cresols, creosote (from certain woods), and other empyreumatic bodies. You would find it a very tedious process, of course, to analyze your "oil of steel"; for its composition would vary materially under different circumstances according to the wood-fiber used, the manufacture of the paper, the temperature generated, and the amount of smoke thrown down upon the cold plate.

We have found creosote a very excellent remedy in various parasitic skin diseases, and especially a substance sold as pyrolignin has given us good results.—ED.]

QUERIES

QUERY 5940.—"Colloidal Palladium in Obesity." E. N., Missouri, forwards a clipping referring to Max Kauffmann's (Halle) experimentation in the treatment of obesity, with colloidal palladium ("colloidal palladium hydroxydul"). Our correspondent wishes to know whether the treatment has proven generally successful; and, also, where the article may be obtained. "I am" so often asked by obese persons how they can rid themselves of their superfluous adipose tissue," he writes, "but thus far my efforts to relieve them have been most unsuccessful."

We cannot express an opinion as to the efficiency of the socalled "Kauffmann treatment for obesity." A translation of Kauffmann article appears in *The Therapeutist* (Vol. XXIII, No 7.) If you desire a copy, send 12 cents to the publishers. Messrs. Henderson & Spaulding, Sylvan Grove, Old Kent Road, London, S. E.

Palladium is now being investigated, as is vanadium. It is possible, of course, to influence metabolism, materially by the administration of the salts of the various metals, one way or the other.

Kauffmann bases his treatment upon the idea that metals of the platinum group exert a marked hemolytic action, i.e., are good oxygen carriers. With this in mind, he attempted to find among the colloidal preparations of pladium, platinum, ruthenium, and osimium a product that would prove really serviceable in obesity—a condition arising from a disturbance of the normal oxidation process.

It is supposed that the platinum colloids excite the processes of combustion and, as a result, increase oxidation; destruction of body-substance naturally follows.

In view, however, of our present imperfect knowledge of the subject, we would hesitate to use this socalled "palladium hydroxydul."

We are mailing you literature on the treatment of obesity which will, we think be of interest, and assure you that the eminently rational and safe procedures outlined prove effective in the majority of cases.

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QUERY 5941.—"Duodenal Ulcer." A. T., Georgia, writes: "Could you outline for me a really good internal treatment of duodenal ulcer? If possible, I want to avoid resorting to operation in a case under my care."

The medicinal treatment of duodenal ulcer is practically that of gastric ulcer. In both the exact conditions existing must be ascertained, and therapeutic procedures based upon these.

When hemorrhage is troublesome, we have found it advisable to give calcium chloride or calcium lactate (or, better still, these two salts in combination), three times daily, for some time; or a solution of calcium lactate (8 to 12 grains in 4 ounces of water) may be thrown into the rectum. A 10-percent solution of gelatin, about 1 ounce, may be taken internally twice a day, or, also, 15 to 30 grains of strontium or magnesium lactate in 4 ounces of sterile water by hypodermoclysis. Also, 5 minims of a 1:1000 solution of suprarenalin or supranephrin have yielded good

results, but great care must be exercised to avoid too marked an increase of arterial tension.

In *acute* hemorrhage, apply the ice-pack to the epigastrium; also, give morphine sulphate, 1-8 grain, hypodermically. The hemorrhage checked, feed per rectum every twelve hours, and give white of egg by mouth twice daily. The oxide or nitrate of silver or bismuth subnitrate should be given in fairly full doses as conditions improve. An existent hyperchlorhydria must be corrected, of course. Iron and arsenic should be pushed if anemia exists.

The prognosis is serious in cases of frequently recurring hemorrhage. However, complete recovery may follow proper treatment. It is not always easy to differentiate between duodenal and gastric ulcer. It should be remembered that the former condition is more frequently observed in males. Pain is more frequent to the right of the median line, and not radiating to the back. Vomiting is rare; melena is quite frequent. Local and circumscribed tenderness on pressure is not marked as in gastric ulcer. Intestinal hemorrhages are frequent, and the possibility of sudden collapse from them at any time should be remembered.

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QUERY 5942.—"Scrotol Eczema." K. C., Indiana, for over four years has been treating a very marked case of eczema of the scrotum. Nothing so far has done any material good, and the Doctor, having "tried so many remedies without avail," has "begun to lose faith in medicine." And, he continues, "I now think of trying corrosive sublimate solution, 5 grains to the ounce of alcohol, applying it to all the affected areas, morning and night; in fact, I have done so. The eczema just about drives the man wild."

As we have pointed out before, eczema of this type is invariably intractable, especially if the underlying systemic disorder is not corrected.

The disease, when it attacks these parts, is usually of the erythematous variety. Itching is severe, and fissuring not uncommon. The urine must be carefully examined for sugar. In every case a suspensory bandage should be worn; the writer prefers to use a flat cheese-cloth bag, which is to be dusted freely with a powder consisting of zinc stearate, boric acid, the phenolsuphonates, and talc.

In very stubborn old cases, this preparation may be tried; Tincture of benzoin, 1 ounce; salicylic acid, 5 grains (or boric acid, 20 grains); oil of cade, 30 grains. Should this fail, a 2 to 5-percent solution of silver nitrate in spirit of nitrous ether may be applied once a week, and a mild salve (resin ointment and zinc oxide, equal parts) used in the interval.

Always the skin should be thoroughly washed every second or third day with hot boric-acid solution. Elimination must be maintained, thorough digestion secured, and hepatic activity stimulated. A most careful combination is echinacoid, gr. 1-2; alnuoid, gr. 1-3; irisoid, gr. 1-5; to be administered three or four times daily. The triple arsenates should be taken after meals.

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QUERY 5943.—"Dislocation of the Semilunar Cartilage." W. B., Idaho, is treating a woman troubled with what appears to be a dislocation of the internal semi-lunar cartilage of the left knee. This has occurred off and on for probably thirty years, but, except for giving trouble for an instant or very brief spell, it has occasioned very little inconvenience until the last six months.

In February and again last month, the woman has been confined to bed, the knee swelling and causing considerable pain. During the period of swelling the cartilage can be detected, when dislocation occurs pain is severe. The patient wears an elastic stocking (almost too snug to be tolerated), but the cartilage seems to slip out just as readily as without it. The woman is fifty-two years of age and has just passed through the menopause. She is disposed to be "knockkneed."

In internal derangement of the knee-joint (slipping cartilage, dislocation of the semilunar cartilage), operative treatment unquestionably is the quickest, surest, and most satisfactory procedure.

You know, of course, that the original injury generally occurs from a severe wrench, a sudden misstep or strain while standing or walking. At the time, the tibia is radiated outward on the femur and the knee is slightly flexed. A sickening pain is felt in the knee, and it is impossible to extend it. Protusion of the internal cartilage may be felt in front. Reduction is effected by flexing the knee, radiating the tibia and pressing on the cartilage. Following the injury there is synovitis, accompanied by tenderness upon pressure.

In most of these cases the accident is repeated during any slight twist of the knee. In older cases, there is marked muscular atrophy and joint relaxation, so that lateral movement of the joint is present.

If the attacks are frequent, there is little outlook for spontaneous recovery. As a matter of fact, mechanical treatment by the use of kneecaps, bandages or pads promotes muscular atrophy and is a source of discomfort.

Under the circumstances, doctor, it would be wisest for you to have your wife examined by a competent surgeon. If your diagnosis is confirmed, the joint should be opened by a longitudinal incision, the loose parts of the cartilage removed, and the joint closed by sutures. Fixation for two or three weeks should follow. At the end of this time, massage and passive manipulation should be begun.

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QUERY 5944.—"Molluscum Fibrosum." W. M. F., Alabama, has under treatment what he calls a very peculiar case in which he desires assistance. He writes:

"Patient, a man 76 years old, active, and goes where he pleases. He has a goiter (started about six years ago) which interferes with his talking to some extent. However, the trouble that causes the most anxiety is 'bump formations' all over his body. When these first make their appearance they are small—about the size of shot—and continue to grow until they get to be as large as the end of the thumb. There is no inflammation or any troublesome symptom, except for a slight itching and 'drawing sensation' over the region of the stomach. The swellings are from one to three inches apart and very much resemble wens; they are movable and seem to be loose under the skin to some extent and of about the same consistency. They first made their appearance about three weeks ago, and they are increasing in number. He has just returned from Birmingham, Alabama, where he went to consult physicians, but received no encouragement; in fact, none of them seemed to know what the trouble was. These bumps have been coming about three weeks, and now are all over the body. The doctors at Birmingham examined his blood and kidneys and found no abnormalities."

We are inclined to think that your patient suffers from molluscum fibrosum, a connective-tissue new-growth, an affection that appears as one or more sessile or pedunculated, pea- to egg-sized, firm, soft, rounded (sometimes flattened), painless tumors seated beneath the skin.

The skin over these tumors generally is normal, but may be tense or lax and of a slightly reddish color. The more rapidly the growths enlarge, the more likely is the skin to assume an erythematous tint. The etiology is obscure. The subjects of the malady are physically rundown.

Mulluscum contagiosum must be differentiated from the foregoing. The growths in this variety are smaller and more commonly seated about the face, and may have a central depression, or aperture. The skin, moreover, is thin and stretched and presents a semitranslucent appearance.

Diffuse lipoma appears as soft, flattened, variously elevated, somewhat lobular tumors, with no sharp delimitation. They are not painful. They are usually found on the neck, back, and buttocks.

Neuromata are firm, immovable, elastic, fibrous tubercles, containing new nerve-elements, and development is accompanied by violent paroxysmal pain. This condition is but rarely observed.

In this connection, we must not forget that multiple benign tumor-like new-growths, lentil- to bean-sized, whitish or bluish-white, rounded or slightly flattened, are occasionally observed. They seem hollow and when pressed with the finger can usually be pushed below the level of the surface; upon withdrawing the finger, the tumor springs back. The growths appear slowly, as a rule; new tumors arise from time to time. Stelwagon reports the case of a middle-aged woman who had forty such tumors, but which gave rise to no subjective symptoms. The cause of this condition is unknown. The skin alone is involved in their formation.

We suggest that you excise one of the smaller growths, under local anesthesia, and forward it to a competent pathologist for examination. A definite diagnosis can then be made.

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QUERY 5945.—"Aphasia." G. W. P., Kansas, is treating a man who has been suffering from a peculiar nervous disease for about three months. "At first he partly lost the use of his voice, and since then he has been almost unable to talk or write. He is 73 years old, was a soldier in the Civil War, and has been in comparatively good health most of the time since about 1886, at least. He complains much of the time now of a pain in the left upper arm. He rarely has headache, but most of the time has 'a strange feeling in his head.' He has lived an active life. He has consulted several physicians, for his present trouble, but received little relief. About seven months ago he became troubled with constipation and at intervals

has had to take some physic. The constipation increased until about three months ago, when the present nervous affliction appeared. His pulse has been normal most of the time."

It is clear that this man's condition is altogether too serious to permit of an offhand diagnosis or haphazard prescribing. We do not quite understand as to whether this man's aphasia is complete or occurs only periodically. In motor aphasia (aphemia of Broca), the power of articulate speech is wanting: the patients have forgotten the process, the mechanism, which they formerly called into action to produce the desired speech. They are, therefore, mute, although retaining the power to utter a few inarticulate sounds. Such loss of speech cannot be ascribed to any paralysis of the muscles, although often we find as an accompanying phenomenon a hemiparesthesia or even a hemiplegia. Frequently, if the lower facial or right hypoglossal muscles are involved, the tongue, when protruded, deviates to the right.

Considering the patient's age, it is probable that his condition is based upon cerebral changes (sclerosis). Broadly speaking, maintenance of elimination, equalization of circulation, and improvement of nutrition are the essentials of treatment. It would be well to have the man examined by a competent neurologist. Failing this, make a very thorough physical examination and report your findings. The reflexes should be tested, and also the pulse rate and blood pressure determined.

With such clinical data and the report of a competent pathologist on a specimen of urine (4 ounces from the 24-hour output, stating the total quantity voided), we may be able to formulate a more intelligent answer.

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QUERY 5946.—"Hemorrhoids." J. E. H., Texas, asks for the detailed technic of the injection-method of treating hemorrhoids. He has a patient with "bleeding piles," the tumor coming down at each defecation. The protruding mass is of dark-red color, and is flat and soft. There does not seem to be an apex to the tumor, and he wonders at what point he should make the injection. The protrusion has been touched with nitric acid, and the patient applies cotton wet with a mixture of 1 dram of dilute nitric acid and 8 ounces of water, to stop the bleeding, as advised by Lanphear.

It is probable that you have to deal with the arterial variety of hemorrhoids, and such tumors should not be injected by anyone not fully familiar with the procedure. In all cases, great care must be taken not to throw any of the solution into the bowel-wall, as extensive sloughing invariably follows.

Any tumor formed in the mucous and submucous areolar tissue covering the internal sphincter-muscle is really a hemorrhoid. In some cases, the dome (and apex) of the pile is so denuded that a raw, bleeding surface exists. This, when turgid from straining or rasped by passing movements, bleeds freely. Blood may ooze from the whole granular base or be seen pumping from one or more open vessels.

If under the bleeding surface no tumid mass of considerable size exists, we have to deal with a capillary hemorrhoid. Should infection occur or a thrombus form, the angiomatous substance takes on a solidification. Sometimes it is difficult to reduce such tumors. Allingham points out that when the hemorrhoid is reduced within the sphincter it so far empties its veins that oftentimes there remains nothing which the palpating finger can feel. When prolapsed, the hemorrhoid, of course, is turgid. As it is also within the sphincter, much inflammation is set up.

A socalled "attack of piles" really means that the hemorrhoidal mass, extruded at stool, is held outside the sphincter and becomes more turgid, inflamed, and painful. Under such circumstances, the sphincter takes on a spasmodic action, and sometimes neither the patient nor the physician can reduce the protrusion. Under such circumstances, sedative treatment should be employed and the patient put to bed for two to ten days. Operation during this stage of inflammation is not desirable. The mass must be reduced under anesthesia. When it is reduced, the sphincter should be dilated forcibly.

Exceptionally a pile denuded of epithelium will bleed at each movement, the patient losing several ounces of blood and the hemorrhage ceasing only when the tumor is drawn within the sphincter.

Your patient's trouble seems to be of this nature, and we doubt the advisability of making the injection. Ligation and excision would prove more satisfactory. For the operative procedure, see any modern work on surgery.

However, if the nitric-acid treatment is faithfully (and intelligently) followed, and the patient given a mild laxative at night, and a laxative saline on rising the next morning,

hamameloid and collinsonoid, two granules, and strychnine, gr. 1 64, three times daily, with a cool enema (aqueous extract of calendula, 1 ounce, triple sulphocarbolates, 20 grains, water, 12 ounces), after each stool, marked improvement should be secured in a week or two.

As already pointed out, the sphincter should be thoroughly dilated as a first procedure.

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QUERY 5947.—"Emetine and Emetoid. Dermatitis Venenata." F. H. C., Ohio, dedires to know just what is the difference between emetoid and emetine. Also, whether there is any effective treatment for ivy poisoning. "I have on hand," he writes, "a case of ivy poisoning followed by a skin eruption that is very annoying—it looks something like acne rosacea, but there is also intense itching and burning. The patient has been taking Fowler's solution of arsenic for years for the purpose of preventing attacks of ivy poisoning and, as a result, has contracted a mild neuritis. I should like to know whether there is any way to prevent this man from becoming poisoned."

Emetoid is a 10-percent trituration of the hydrochlorides of the alkaloids of ipecacuanha, i. e., emetine and cephaeline. This drug increases the secretion of the mucous membranes and is of service in bronchitis, congested conditions of the upper respiratory tract, many enteric disorders, and where it is desirable to increase the output of bile. As an expectorant, the dose is one to four granules of 1-64 grain each every one-half to two hours, to effect. In enteric disorders, give 1-32 grain or more every hour or so, as required. To unload the liver, give 1-2 to 1 grain, with little or no fluid, when going to bed.

Emetine is the specifically expectorant principle, 1-64 grain of the hydrochloride being equivalent to four or five times the quantity of the combined principles as presented in emetoid. Emetine is distinctly indicated wherever it is desirable to modify or increase the mucous secretions of the respiratory or digestive tracts. Also useful in chronic gastritis of alcoholics (together with capsicum—the oleoresin), in mucous diarrheas of children, dysentery of adults, and so on. It is a particularly valuable remedy in bronchitis, especially of children, where the cough is dry and "ringing," and almost incessant.

Of late, emetine hydrochloride has been proven to be an almost positive cure for chronic (amebic) dysentery. If you have access to CLINICAL MEDICINE, read the articles upon this subject which appeared in the August issue.

In the other matter, there is a question whether you are dealing with dermatitis venenata or with arsenical poisoning. You say the man has been taking Fowler's solution for years to prevent attacks. Are we to understand that the dermatitis appears each year without definite exposure? Some individuals can hardly go near the plant without the eruption appearing almost immediately, though generally it develops a day or so after exposure.

The dermatitis from rhus usually subsides in the course of a week, but may last for weeks or even months. Not infrequently, however, some constitutional disturbance (acidosis), which causes the individual to be peculiarly susceptible, is responsible for the prolongation of the eruption.

In every instance the patient should receive a mercurial purge, followed by a laxative saline and then echinacoid and irisoid in full dosage, every three hours. About 1 or 2 drams of fluid extract of grindelia robusta added to 4 ounces of water, when continuously applied with a compress, usually proves curative.

The writer has had excellent results from the following procedure: Dissolve one menthol compound tablet and 20 grains of the sulphocarbolates of sodium, potassium, and zinc in 8 ounces of water. Apply compresses saturated with the solution for two or three hours, then dry; empty any bleb, and anoint with zinc-stearate ointment.

Arsenical eruptions, of course, require entirely different treatment.

If you have access to Stelwagon's or Crocker's "Diseases of the Skin," read the chapter on this subject.

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QUERY 5948.—M. E. Bull, of Illinois, asks "Can chromium sulphate be given safely to a pregnant woman?"

We regret to say that our knowledge of the action of chromium sulphate is insufficient to allow us to express a positive opinion as to its exerting an inimical effect upon a pregnant woman and a fetus *in utero*. Frankly, we should hesitate to prescribe this or any other potent drug during pregnancy, unless, of course, comparative reasons for such medication existed.

There is no reason to believe, however, that the drug *per se* will influence the fetus. Definite knowledge upon this point can only be obtained by experimentation.